SERVICE MANUAL

AE-2B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-S3431A	RM-831	Italian	SCC-G59F-A	KV-S3433E	RM-831	Spanish	SCC-G56F-A
KV-S3431B	RM-831	French	SCC-G57F-A	KV-S3431K	RM-831	OIRT	SCC-G73E-A
KV-S3431D	RM-831	AEP	SCC-G45E-A	KV-S3432U	RM-831	UK	SCC-G55G-A

MICROFILM

TRINITRON® COLOR TV

SONY®

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
Italian	B/G/H, D/K	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, D/K L, I	GERMAN Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
OIRT	B/G/H, D/K	GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
UK	I	NICAM Stereo	UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	Italian	French	AEP	Spanish	OIRT	UK
Power Consumption	131W	147W	147W	150W	147W	205W

SPECIFICATIONS

Picture Tube	Super Trinitron Approx. 86 cm (34 inches) (Approx. 80 cm picture measured diagonally) 110° -deflection

Input/Output Terminals

[REAR]

⊖1 21-pin Euro connector (CENELEC standard)
- inputs for audio and video signals
- inputs for RGB
- outputs of TV video and audio signals

⊖2/⊟ 2 21-pin Euro connector
- inputs for audio and video signals
- inputs for S video
- outputs for audio and video signals (selectable)

⊖ Audio outputs (variable) - phono jacks

[FRONT]

⊡3 Video input - phono jack
⊖ Audio inputs - phono jacks
⊟3 S video input 4-pin DIN
Ω Headphone jacks : stereo minijack

Sound output	2 x 12W (RMS) 2 x 30W (Music)
Power requirements	220 - 240V
Dimensions	Approx. 813x648x596 mm
Weight	Approx. 79kg
Supplied accessories	RM-831 Remote Commander (2) IEC designation R6 battery (1)
Other features	NICAM , FASTEXT.

[RM-831]

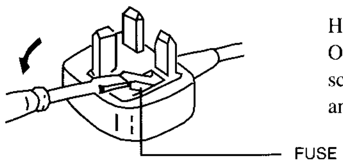
Remote control system	infrared control
Power requirements	1.5V dc 1 battery IEC designation R6 (size AA)
Dimensions	Approx. 65x225x21 mm (w/h/d)
Weight	Approx. 157g (Not including batteries)

Design and specifications are subject to change without notice.

Model name Item	KV-S3431A	KV-S3431B	KV-S3431D	KV-S3433E	KV-S3431K	KV-S3432U
Pal Comb	OFF	OFF	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF	OFF	OFF
RGB Priority	ON	ON	OFF	OFF	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF	OFF	OFF
DSP	ON	ON	ON	ON	ON	ON
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF
Dyn. Convergence	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	ON	OFF
Norm I	OFF	ON	OFF	OFF	OFF	ON
Norm D/K	ON	ON	ON	ON	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF
DSP	OFF	OFF	OFF	OFF	OFF	OFF
Language Preset	Italiano	Francais	Deutsch	None	OIRT	English

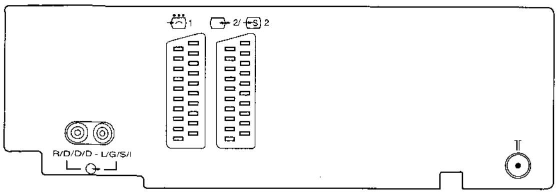
WARNING (KV-S3432U only)

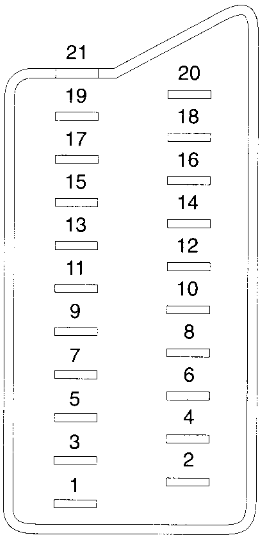
The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the ASTA mark.
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME.
IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED.
THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.
When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector (⊖-1 ⊖2/⊖4)





Pin No.	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 ± 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground(blanking)	
15	○	–	–	Red input	0.7 ± 3dB, 75 ohms, positive
	–	○	○	(S signal) croma input	0.3 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Lowstate (0 - 0.4V) Input impedance : 75ohms
17	○	○	○	Ground(video output)	
18	○	○	○	Ground(video input)	
19	○	○	○	Video output	1V ± 3dB,75ohms,positivesync: 0.3V(-3+10d
20	○	–	–	Video input	1V ± 3dB,75ohms,positivesync: 0.3V(-3+10d
	–	○	○	Video input Y (S signal)	1V ± 3dB,75ohms,positivesync: 0.3V(-3+10d
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm , positive Sync. 0.3V -3/+10 dB
4	C (S signal) input	0.3V ± 3dB 75 ohm , positive Sync.

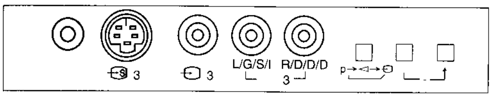


TABLE OF CONTENTS

Section *Title* *Page*

1. GENERAL

1-1. Overview 6
1-2. Step 3 - Tuning in to TV stations 7
1-3. Additional Presetting Functions 8
1-4. Watching the TV 10
1-5. Adjusting and Setting the TV Using the Menu 11
1-6. Picture in Picture 12
1-7. Teletext 12
1-8. Connecting and Operating optional Equipment 14
1-9. For Your Information 15

2. DISASSEMBLY

2-1. Rear Cover Removal 16
2-2 Speaker Removal 16
2-3. Chassis Assy Removal 17
2-4. Service Position 17
2-5. M2 and A4 Board Removal 18
2-6. D4 and B Board Removal 18
2-7. Extension Boards 19
2-8. F Bracket Removal 19
2-9. J Board Removal 20
2-10. P1 Board Removal 20
2-11-1. Wire Dressing 21
2-11-2. Wire Dressing 21
2-12. Degaussing Coil Removal 22
2-13. Picture Tube Removal 23

3. SET-UP ADJUSTMENTS

3-1. Beam Landing 24
3-2. Convergence 25
3-3. Focus 28
3-4. White Balance 28

4. CIRCUIT ADJUSTMENTS

4-1. Electrical Adjustments 29
4-2. Volume Electrical Adjustments 33
4-3. Test Mode 2 34
4-4. Error Message 35
4-5. Error I^2C Bus Diagnosis System in AE-2B Chassis 35

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD, DUE TO A LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLIMENTS PUBLISHED BY SONY.

Section *Title* *Page*

5. DIAGRAMS

5-1. Block Diagram (1) 37
Block Diagram (2) 41
5-2. Circuit Board Location 45
5-3. Schematic Diagrams and Printed Wiring Boards 45
* H1 Board 46
* H2 Board 46
* F2 Board 46
* F1 Board 46
* J Board 50
* A Board 55
* M2 Board 62
* D Board 66
* A4 Board 71
* D2 Board 71
* P1 Board 72
* B Board 73
* D1 Board 80
* VM Board 82
* D5 Board 82
* C Board 84
* IF Board 87
5-4. Semiconductors 94

6. EXPLODED VIEWS

6-1. Chassis 96
6-2. Picture Tube 97

7. ELECTRICAL PARTS LIST 98

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÈ LORS DE TOUT DÈPANNAGE. LE CHÁSSIS DE CE RÈCEPTEUR EST DIRECTEMENT RACCORDÈ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÈCURITÈ !!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÈMAS DE PRINCIPE, LES VUES EXPLOSÈES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÈCURITÈ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÈRO DE PIÈCE EST INDIQUÈ DANS LE PRÈSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÈS PAR SONY.

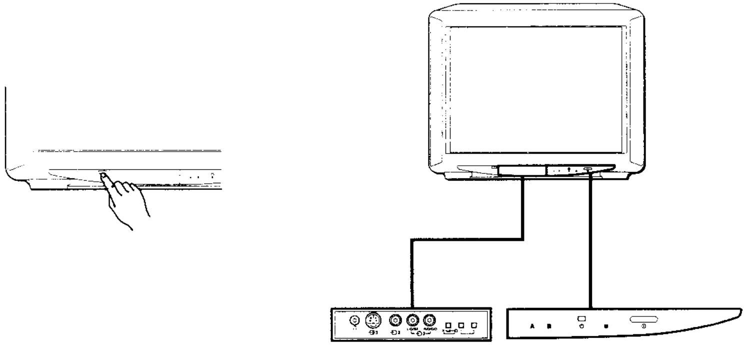
SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

1-1. OVERVIEW

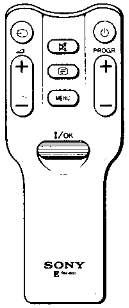
This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

TV set-front

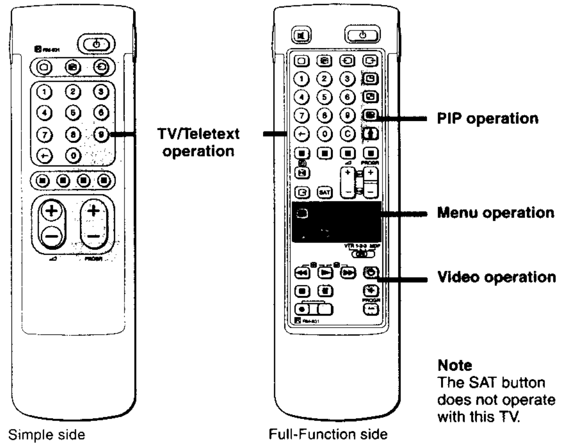


Symbol	Name	Refer to page
⏼	Main power switch	13
⏻	Standby indicator	13
A-◯◯-B	Stereo A/B indicators	15
🎧	Headphones jack	22
⊖3, ⊖3, ⊖3,	Input jacks (S video/video/audio)	22
P→◢→⊖	Function selector (Programme/volume/input)	13
–/+	Adjustment buttons for function selector	13

Scroll Commander RM-860



Remote commander RM-831



Note
The SAT button does not operate with this TV.

TV/Teletext operation

Symbol	Name	Refer to page
🔇	Muting on/off button	14
⏻	Standby button	13
▢	TV power on/TV mode selector button	13
⊜	Teletext button	14
⊖	Input mode selector	14
⊖•	Output mode selector	23
1,2,3,4,5,6, 7,8,9 and 0	Number buttons	13
-/--	Double-digit entering button	13
C	Direct channel entering button	10
◢+/-	Volume control button	13
PROGR+/-	Programme selectors	13
⊜⊜	Teletext page access buttons	18
■	Picture adjustment button	15
♪	Sound adjustment button	15
⊕	On-screen display button	14
⊕	Teletext hold button	18
⊜	Time display button	14
■■■■	Fastext buttons	18

PIP (Picture-in-Picture) operation

Symbol	Name	Refer to page
▢	PIP on / off button	17
↑	PIP source selector	17
▢	Swap button	17
▢	PIP position changing button	17

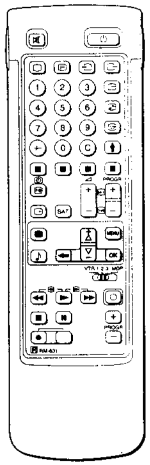
Menu operation

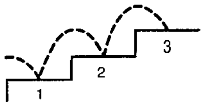
Symbol	Name	Refer to page
MENU	Menu on / off button	7
△+/▽–	Select buttons	7
OK	OK (confirming) button	7
←	Back button	7
↕/OK	Scroll Commander: Roller to select / confirm menu functions	7

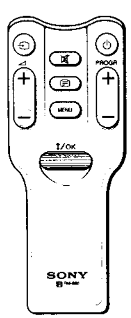
Video operation

Symbol	Name	Refer to page
VTR 1/2/3, MDP	Video equipment selector	24
◀◀ ▶ ▶▶ ■ ❚❚ ● ⏻ PROGR +/-	Video equipment operation buttons	24

1-2. STEP 3 – TUNING IN TO TV STATIONS






PROGR
MENU
1/OK
SONY

Once you have set up the TV, you can choose the language of the menu. Then you should preset the channels (up to 100 channels) by choosing either the automatic or manual method.

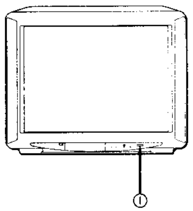
The automatic method is easier if you want to preset all receivable channels at once. Use the manual method if you only have a few channels and want to preset channels one by one. The manual method is also convenient for allocating programme numbers to various video input sources.

Before you begin

- Check that the Full-Function side of the Remote Commander is visible.
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.

Easy Menu operation using the Scroll Commander

In addition to your double-sided Remote Commander your TV set is supplied with an extra Remote commander. This Scroll Commander works with a roller for convenient, fast-access operation of the Menu functions. Move the roller upwards to move the cursor upwards, move the roller downwards to move the cursor downwards, press the roller to confirm a selection. The other buttons on this commander have the same function as the respective buttons on the double-sided Remote Commander.



To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

Note on the DEMO function
If you choose »Demo« on the main menu, you can see a sequential demonstration on the menu functions.
Press MENU to stop the function.

❶ Choose a language

1 Depress ⏻ on the TV.
The TV will switch on. If the standby indicator on the TV is lit, press ▢ or a number button on the Remote Commander.
2 Press the MENU button.
The LANGUAGE menu appears. (See Fig. 1.)

MENU

3 Select the language you want with △ + or ▽ – and press OK.

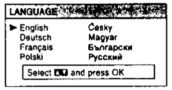
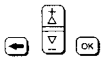

LANGUAGE
▶ English
Deutsch
Français
Polski
Česky
Magyar
Български
Русский
Select ▲▼ and press OK

Fig. 1.

❷ Display the Menu

Press the ← button.
The main menu appears. (See Fig. 2.)

Now, choose one of the following methods
»Preset Channels Automatically«
or
»Preset Channels Manually«.



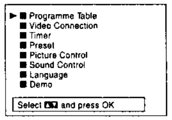

▶ ■ Programme Table
■ Video Connection
■ Timer
■ Preset
■ Picture Control
■ Sound Control
■ Language
■ Demo
Select ▲▼ and press OK

Fig. 2.

With this method, you can preset all receivable channels at once.

To stop automatic channel presetting
Press ← on the Remote Commander.

Notes
- After presetting the channels automatically, you can check which channels are stored on which programme positions. For details, see »Using the Programme Table« on page 16.
- You can sort the programme positions to have them appear on screen in the order you like. For details, see »Sorting Programme Positions« on page 10.

Note
Programme names are automatically taken from Teletext if available. If not, please refer to page 11 »Captioning a Station name« for more information.

❸ Preset channels automatically

1 Select »Preset« with △ + or ▽ – and press OK.
The PRESET menu appears. (See Fig. 3.)

2 Select »Auto Programme« with △ + or ▽ – and press OK.
The AUTO PROGRAMME menu appears. (See Fig. 4.)

3 Press OK. Select if necessary the TV broadcast system (B/G for Western European or D/K for Eastern European countries) with △ + or ▽ – and press OK. The first element of the »PROG«-number will be highlighted.

4 Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with △ + or ▽ – or the number buttons (e.g. For »04«, select »0« here) and press OK.
The second element of »PROG« will be highlighted.

5 Select the second element of the double-digit number with △ + or ▽ – or the number buttons (e.g. For »04«, select »4« here) (See Fig. 5.) and press OK.

6 Press OK. The automatic channel presetting starts.
When presetting is finished, the preset menu reappears.

All available channels are now stored on successive programme positions.

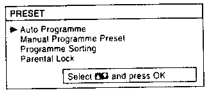

PRESET
▶ Auto Programme
Manual Programme Preset
Programme Sorting
Parental Lock
Select ▲▼ and press OK

Fig. 3.

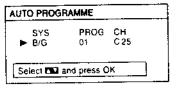

AUTO PROGRAMME
SYS
PROG
CH
▶ B/G
01
C 25
Select ▲▼ and press OK

Fig. 4.

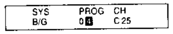

SYS
PROG
CH
B/G
04
C 25

Fig. 5.

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one. You may also allocate programme numbers to various video input sources.

If you have made a mistake
Press ← to go back to the previous position.
To go back to main menu
Keep pressing ←.
To go back to the normal TV picture
Press MENU.

❸ Preset channels manually

1 Select »Preset« with △ + or ▽ – and press OK.
The PRESET menu appears. (See Fig. 6.)

2 Select »Manual Programme Preset« with △ + or ▽ – and press OK.
The MANUAL PROGRAMME PRESET menu appears.
(See Fig. 7.)

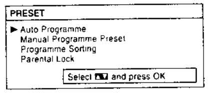
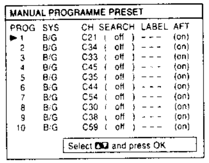

PRESET
▶ Auto Programme
Manual Programme Preset
Programme Sorting
Parental Lock
Select ▲▼ and press OK

Fig. 6.



MANUAL PROGRAMME PRESET

PROG	SYS	CH	SEARCH	LABEL	AFT
▶ 1	B/G	C21	(off)	- - -	(on)
2	B/G	C34	(off)	- - -	(on)
3	B/G	C33	(off)	- - -	(on)
4	B/G	C45	(off)	- - -	(on)
5	B/G	C35	(off)	- - -	(on)
6	B/G	C44	(off)	- - -	(on)
7	B/G	C54	(off)	- - -	(on)
8	B/G	C30	(off)	- - -	(on)
9	B/G	C38	(off)	- - -	(on)
10	B/G	C59	(off)	- - -	(on)

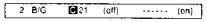
Select ▲▼ and press OK

Fig. 7.

3 Using △ + or ▽ –, select the programme position (number button) to which you want to preset a channel, and press OK.

4 Select if necessary, a video input source (EXT) with △ + or ▽ –.

5 Then press OK. The CH position will be highlighted. (See Fig. 8.)

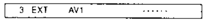


2 B/G C21 (off) ······ (on)

Fig. 8.

6 Using △ + or ▽ –, select C (to preset a regular channel), S (to preset a cable channel) or F (to tune in by frequency) and press OK.
The first element of the »CH« number will be highlighted.
If you have selected EXT in step 4, select the video input source with △ + or ▽ –. (See Fig. 9.)

To tune in a channel by frequency
After selecting F in step 6, enter three digits using the number buttons.



3 EXT AV1 ······

Fig. 9.

There are two ways to preset channels. If you know the channel number, go to step »7-Manual«,

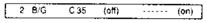
or

if you don't know the channel number, go to step »7-Search«.

7 ***Manual***

-a Select the first element of the »CH« number with △ + or ▽ – or the number buttons and press OK.
The second element of the »CH« number will be highlighted.

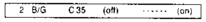
-b Select the second element of the number with △ + or ▽ – or the number buttons.
The selected number appears. (See Fig. 10.)



2 B/G C 35 (off) ······ (on)

Fig. 10.

-c Press OK.
The »SEARCH« position is highlighted and the selected channel is now stored. (See Fig. 11.)



2 B/G C 35 (off) ······ (on)

Fig. 11.

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

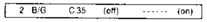
If you have made a mistake
Press ← to go back to the previous position.

To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

7 ***Search***

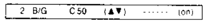
-a Press OK repeatedly until the colour of the SEARCH position changes.



2 B/G C 35 (off) ······ (on)

Fig. 12.

-b Start searching for the channel with △ + (up) or ▽ – (down).
The CH position changes colour. (See Fig. 12.)
The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13.)



2 B/G C 50 (▲▼) ······ (on)

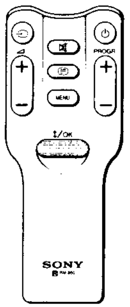
Fig. 13.

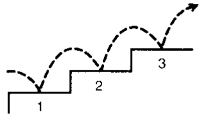
-c Press OK if you want to store this channel. If not, press △ + or ▽ – to continue channel searching.

-d Press OK until the cursor appears by the next programme position.

-e Repeat steps 3 to 7 to preset other channels.

1-3. ADDITIONAL PRESETTING FUNCTIONS



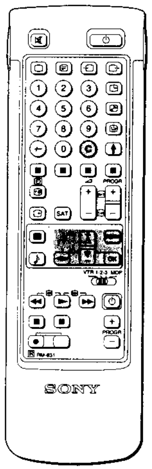


This section shows you additional presetting functions such as sorting or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

Before you begin

- Check that the Full Function side of the Remote Commander is visible.
- Locate the Menu operation buttons.

PROGRAMME SORTING



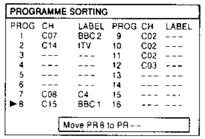
Sorting Programme Positions

With this function, you can sort the programme positions to a preferable order.

1 Press MENU to display the main menu.

2 Select »Preset« with △ + or ▽ – and press OK.
The PRESET menu appears.

3 Select »Programme Sorting« with △ + or ▽ – and press OK.
The PROGRAMME SORTING menu appears. (See Fig. 14.)



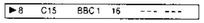
PROGRAMME SORTING

PROG	CH	LABEL	PROG	CH	LABEL
1	C07	BBC 2	9	C02	---
2	C14	ITV	10	C02	---
3	---	---	11	C02	---
4	---	---	12	C03	---
5	---	---	13	---	---
6	---	---	14	---	---
7	C08	C4	15	---	---
►8	C15	BBC 1	16	---	---

Move PR 8 to PR --

Fig. 14.

4 Using △ + or ▽ –, select the programme position which you want to move to another and press OK.
The colour of the selected position changes. (See Fig. 15.)

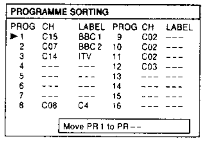


►8 C15 BBC 1 16 --- ---

Fig. 15.

5 Using △ + or ▽ –, select the programme position to which you want to move the channel of the programme position selected in step 4 and press OK. Now the programme positions have been sorted. (See Fig. 16.)

6 Repeat steps 4 and 5 to sort other programme positions.



PROGRAMME SORTING

PROG	CH	LABEL	PROG	CH	LABEL
►1	C15	BBC 1	9	C02	---
2	C07	BBC 2	10	C02	---
3	C14	ITV	11	C02	---
4	---	---	12	C03	---
5	---	---	13	---	---
6	---	---	14	---	---
7	---	---	15	---	---
8	C08	C4	16	---	---

Move PR 1 to PR --

Fig. 16.

Tuning in a Channel Temporarily

You can tune in a channel temporarily, even when it has not been preset. Use the buttons on the Full-Function side of the Remote Commander.

1 Press C on the Remote Commander. For cable channels, press C twice.
The indication »C« (»S« for cable channels) appears on the screen.

2 Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4).
The channel appears.
However, the channel will not be stored.

If you have made a mistake
Press ← to go back to the previous position.

To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

MANUAL PROGRAMME PRESET

Skipping Programme Positions

You can skip unused programme positions when selecting programmes with the PROGR +/– buttons. However, the skipped programmes may still be called up when you use the number buttons.

1 Press MENU to display the main menu.

2 Select »Preset« with △ + or ▽ – and press OK.
The PRESET menu appears.

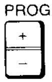
3 Select »Manual Programme Preset« with △ + or ▽ – and press OK.
The MANUAL PROGRAMME PRESET menu appears.
(See Fig. 17.)

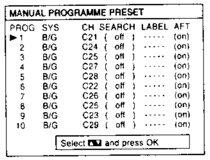
4 Using △ + or ▽ –, select the programme position which you want to skip and press OK.
The »SYS« position changes colour.

5 Press △ + or ▽ – until » – – – « appears in the SYSTEM position. (See Fig. 18.)

6 Press OK. (See Fig. 19.)
When you select programmes using the PROGR +/– buttons, the programme position will be skipped.

7 Repeat steps 4 to 6 to skip other programme positions.



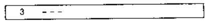


MANUAL PROGRAMME PRESET

PROG	SYS	CH	SEARCH	LABEL	AFT
▶1	B/G	C21	(off)	-----	(on)
2	B/G	C24	(off)	-----	(on)
3	B/G	C25	(off)	-----	(on)
4	B/G	C27	(off)	-----	(on)
5	B/G	C28	(off)	-----	(on)
6	B/G	C22	(off)	-----	(on)
7	B/G	C26	(off)	-----	(on)
8	B/G	C25	(off)	-----	(on)
9	B/G	C23	(off)	-----	(on)
10	B/G	C29	(off)	-----	(on)

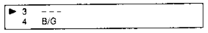
Select ▲▼ and press OK

Fig. 17.



3 – – –

Fig. 18.



▶ 3 – – –
4 B/G

Fig. 19.

MANUAL PROGRAMME PRESET

Captioning a Station Name

Programme names are usually automatically taken from Teletext if available. You can also »name« a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. RTL). Using this function, you can easily identify which channel or video source you are watching.

1 Press MENU to display the main menu.

2 Select »Preset« with △ + or ▽ – and press OK.
The PRESET menu appears.

3 Select »Manual Programme Preset« with △ + or ▽ – and press OK.
The MANUAL PROGRAMME PRESET menu appears.
(See Fig. 20.)

4 Using △ + or ▽ –, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.

5 Select a letter or number with △ + or ▽ – and press OK.
The next element will be highlighted.
Select other characters in the same way. If you want to leave an element blank, select – and press OK. (See Fig. 21.)

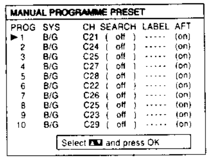
6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin). Now the caption you chose is stored. (See Fig. 22.)

7 Repeat steps 5 and 6 to caption names for other channels.

If you have made a mistake
Press ← to go back to the previous position.

To go back to main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

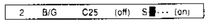


MANUAL PROGRAMME PRESET

PROG	SYS	CH	SEARCH	LABEL	AFT
▶1	B/G	C21	(off)	-----	(on)
2	B/G	C24	(off)	-----	(on)
3	B/G	C25	(off)	-----	(on)
4	B/G	C27	(off)	-----	(on)
5	B/G	C28	(off)	-----	(on)
6	B/G	C22	(off)	-----	(on)
7	B/G	C26	(off)	-----	(on)
8	B/G	C25	(off)	-----	(on)
9	B/G	C23	(off)	-----	(on)
10	B/G	C29	(off)	-----	(on)

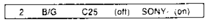
Select ▲▼ and press OK

Fig. 20.



2 B/G C25 (off) S█··· (on)

Fig. 21.



2 B/G C25 (off) SONY· (on)

Fig. 22.

MANUAL PROGRAMME PRESET

Manual Fine-Tuning

Normally, the AFT (automatic fine-tuning) is already operating. However, if the picture is distorted, you can use the manual fine tuning function to obtain better picture reception.

1 Press MENU to display the main menu.

2 Select »Preset« with △ + or ▽ – and press OK.
The PRESET menu appears.

3 Select »Manual Programme Preset« with △ + or ▽ – and press OK.
The MANUAL PROGRAMME PRESET menu appears.
(See Fig. 23.)

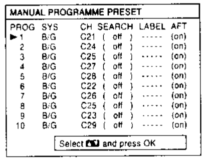
4 Using △ + or ▽ –, select the programme position corresponding to the channel which you want to manually fine-tune, and press OK repeatedly until the AFT position changes colour.

5 Fine-tune the channel with △ + or ▽ – so that you get the best TV reception. As you press the cursor buttons, the frequency changes from –15 to +15. (See Fig. 24.)

6 After fine tuning, press OK.
The cursor appears beside the next programme position (at the left margin). (See Fig. 25.) Now the fine-tuned level is stored.

7 Repeat steps 4 to 6 to fine-tune other channels.

To reactivate AFT (automatic fine tuning)
Repeat from the beginning and select »ON« in step 5.

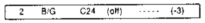


MANUAL PROGRAMME PRESET

PROG	SYS	CH	SEARCH	LABEL	AFT
▶1	B/G	C21	(off)	-----	(on)
2	B/G	C24	(off)	-----	(on)
3	B/G	C25	(off)	-----	(on)
4	B/G	C27	(off)	-----	(on)
5	B/G	C28	(off)	-----	(on)
6	B/G	C22	(off)	-----	(on)
7	B/G	C26	(off)	-----	(on)
8	B/G	C25	(off)	-----	(on)
9	B/G	C23	(off)	-----	(on)
10	B/G	C29	(off)	-----	(on)

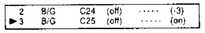
Select ▲▼ and press OK

Fig. 23.



2 B/G C24 (off) ----- (-3)

Fig. 24.



2 B/G C24 (off) ----- (-3)
▶3 B/G C25 (off) ----- (on)

Fig. 25.

PARENTAL LOCK

Parental Lock

You can prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

1 Press MENU to display the main menu.

2 Select »Preset« with △ + or ▽ – and press OK.
The PRESET menu appears.

3 Select »Parental Lock« with △ + or ▽ – and press OK.
The PARENTAL LOCK menu appears. (See Fig. 26.)

4 Using △ + or ▽ –, select the programme position you want to block and press OK.
The CH and LABEL change colour indicating that this programme is now blocked. (See Fig. 27.)

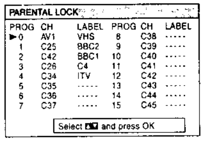
5 Repeat step 4 to block other programme positions.

Cancelling blocking

1 On the PARENTAL LOCK menu, select the programme position you want to unblock with △ + or ▽ –.

2 Press OK.
The CH and LABEL change colour to normal colour indicating that the blocking has been cancelled.

If you try to select a programme that has been blocked
The message »LOCKED« appears on the blank TV screen.

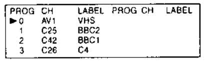


PARENTAL LOCK

PROG	CH	LABEL	PROG	CH	LABEL
▶0	AV1	VHS	8	C38	-----
1	C25	BBC2	9	C39	-----
2	C42	BBC1	10	C40	-----
3	C26	C4	11	C41	-----
4	C34	ITV	12	C42	-----
5	C35	-----	13	C43	-----
6	C36	-----	14	C44	-----
7	C37	-----	15	C45	-----

Select ▲▼ and press OK

Fig. 26.

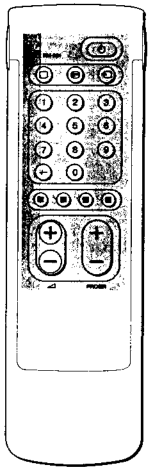


PROG	CH	LABEL	PROG	CH	LABEL
▶0	AV1	VHS			
1	C25	BBC2			
2	C42	BBC1			
3	C26	C4			

Fig. 27.

Operating Instructions

1-4. WATCHING THE TV



If no picture appears when you depress ⏻ on the TV
and if the standby indicator on the TV is lit, the TV is in standby mode. Press ▢ or one of the number buttons to switch it on.

This section explains the basic functions you use while watching TV. Most of the operations can be done using the simple side of the Remote Commander.

Switching the TV on and off

Switching on

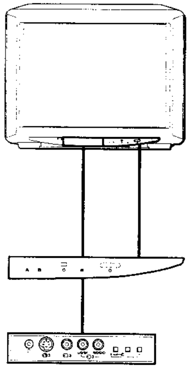
Depress ⏻ on the TV.

Switching off temporarily

Press ⏻ on the Remote Commander.
The TV enters standby mode and the standby indicator on the front of the TV lights up.
To switch on again
Press ▢, PROGR +/–, or one of the number buttons on the Remote Commander.

Switching off completely

Depress ⏻ on the TV.



Selecting TV Programmes

Press PROGR +/- or press number buttons.

To select a double-digit number

Press -/- -, then the numbers.
For example, if you want to choose 23, press -/- -, 2 and 3.

Adjusting the Volume

Press ◿ +/–.

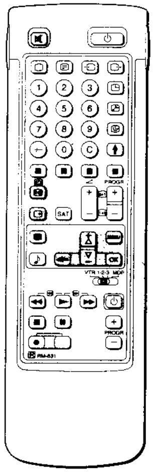
Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can select programmes, adjust the volume, and select video input sources.

- Press P→◿→⊕ button repeatedly until the programme number, ◿ (for volume), or ⊕ (for video input picture) appears. Then adjust with the –/+ buttons.
- Press –/+ buttons to switch on the TV from the standby mode.
- Press –/+ simultaneously to reset picture and sound controls to the factory preset level (RESET function).

For details of the teletext operation, refer to page 18.

For details of the video input picture, refer to page 23.



To make the Programme Table disappear
Press MENU.

Watching Teletext or Video Input

Watching teletext

- Press ⊜ to view the teletext.
- Press three number buttons to select a page.
- Press one of the coloured buttons for fastext operation.
- Press ⊕ (PAGE +) or ⊖ (PAGE –) for the next or preceeding page.
- To go back to the normal TV picture, press ▢.

Watching a video input picture

Press ⊕ repeatedly until the desired video input appears. To go back to the normal TV picture, press ▢.

More Convenient Functions

Use the Full-Function side of the Remote Commander.

Displaying the on screen indications

- Press ⊕ once to display all the indications. They will disappear after some seconds.
Press ⊕ twice to have the programme number and label stay on screen. Press twice again to make indications disappear.

Muting the sound

- Press 🔇.
To resume normal sound, press 🔇 again.

Displaying the time

- Press ⊙. This function is available only when teletext is broadcast.
To make the time display disappear, press ⊙ again.

Displaying of the Programme Table

Press OK. A Programme Table will be displayed on the right side of the TV screen (See. Fig. 28.)

Selecting of TV programmes
Press PROGR +/– or select the desired programme position using △ + or ▽ – and press OK.

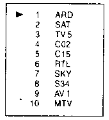
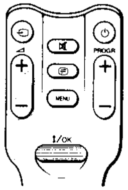
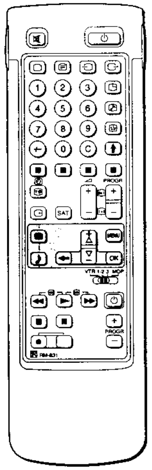


Fig. 28.

1-5. ADJUSTING AND SETTING THE TV USING THE MENU



PICTURE CONTROL
SOUND CONTROL



If you have made a mistake
Press ← to go back to the previous position.

To go back to the main menu
Keep pressing ←.

To go back to the normal TV picture
Press MENU.

Note:
HUE is only available for NTSC colour system and RESOLUTION does not work for SECAM colour system.

Note on LINE OUT
The audio level and the dual sound mode output from the ⊖ jack on the rear correspond to the Headphone VOLUME and DUAL SOUND settings.

When watching video input picture
You can select DUAL SOUND to change the sound.

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. In addition, you can set the resolution to obtain a higher quality picture or change the aspect ratio of the TV display for wide screen effect. You can also select dual sound (bilingual) programmes when available, adjust the sound for listening with the headphones (∩) or individually adjust and store the volume level of each channel (Volume offset). Also you have the possibility to adjust the sound to your individual taste using the Graphic Equalizer and special Sound effects.

1 Press ■ (for picture) or ♪ (for sound) on the Remote Commander.

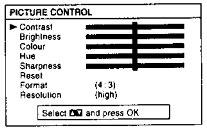
or

Press MENU and select »Picture Control« or »Sound Control«, then press OK.
The PICTURE CONTROL or SOUND CONTROL menu appears. (See Fig. 29. or Fig. 30.)

2 Using △ + or ▽ –, select the item you want to adjust and press OK. The selected item changes colour. (See Fig. 31.)

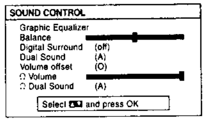
3 Adjust the setting with △ + or ▽ – and press OK.
The cursor appears beside the next item (at the left margin). (See Fig. 32.)
For the effect of each control, see the table below.

4 Repeat steps 2 and 3 to adjust other items.



PICTURE CONTROL
► Contrast
Brightness
Colour
Hue
Sharpness
Reset
Format (4 : 3)
Resolution (high)
Select ▲▼ and press OK

Fig. 29.



SOUND CONTROL
Graphic Equalizer
Balance
Digital Surround (off)
Dual Sound (A)
Volume offset (O)
∩ Volume
∩ Dual Sound (A)
Select ▲▼ and press OK

Fig. 30.

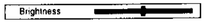


Fig. 31.

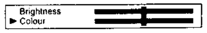


Fig. 32.

Effect of each control

PICTURE CONTROL	Effect	
Contrast	Less —+— More	
Brightness	Darker —+— Brighter	
Colour	Less —+— More	
Hue	Greenish —+— Reddish	
Sharpness	Softer —+— Sharper	
Reset	Resets picture to the factory preset levels	
Format	4 : 3 Normal	16 : 9 Wide screen effect
Resolution	off: Normal	High: Obtain a higher picture quality

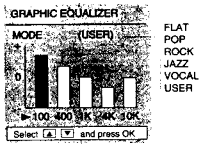
SOUND CONTROL	Effect	
Graphic Equalizer	(See page 16 for more information)	
Balance	More left —+— More right	
Digital Surround	off: Normal	Choice between special sound effects: Dome, Hall, Arena, Simulated (gives width to a monaural source)
Dual Sound	A: channel 1	B: channel 2 stereo mono
	The selected mode of The A-CD-B indicator on the TV lights up	
Volume offset	–7 Less 0 More +7	
Headphones:		
∩ Volume	Less —+— More	
∩ Dual Sound	A: channel 1	B: channel 2 stereo mono
	PIP (if PIP is switched on you can select the PIP sound for the headphones)	

Note:
The modifications made in »User« will be stored. All other settings are reset to the factory-set level when you change to another mode.

Graphic Equalizer

Using this function you can individually adjust the sound by cutting and boosting selected frequencies. You can also select between the following modes:
Flat → Pop → Rock → Jazz → Vocal → User

1. Select »Sound control« in the Main Menu, then select »Graphic equalizer« using △ + or ▽ – and press OK.
2. Press OK. The colour of »Mode« changes. (See Fig. 33.) Select the desired mode with △ + or ▽ –, then press OK.
3. If you want to modify a mode, select the desired bar of a frequency band using △ + or ▽ – and press OK. The selected bar changes colour. Using △ + or ▽ – adjust the level of frequency and press OK. In this way you can adjust all 5 graphic bars.
4. Press MENU to return to the normal TV mode.



GRAPHIC EQUALIZER
MODE (USER)
Select ▲ ▼ and press OK

Fig. 33.

PROGRAMME TABLE

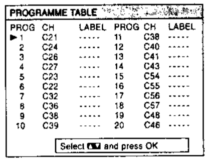
Using the Programme Table

On this table, you can see which channel is preset to which programme position. You can also select programmes using this table.

From the main menu, select »Programme Table« with △ + or ▽ – and press OK.
The PROGRAMME TABLE menu appears. (See Fig. 34.)

To scroll to higher programme numbers, press △ + or ▽ –.

To select a programme using this menu
Select the programme number with △ + or ▽ – and press OK.
The selected programme appears.



PROGRAMME TABLE

PROG	CH	LABEL	PROG	CH	LABEL
► 1	C21	-----	11	C38	-----
2	C24	-----	12	C40	-----
3	C26	-----	13	C41	-----
4	C27	-----	14	C43	-----
5	C23	-----	15	C54	-----
6	C22	-----	16	C55	-----
7	C32	-----	17	C56	-----
8	C36	-----	18	C57	-----
9	C38	-----	19	C48	-----
10	C39	-----	20	C46	-----

Select ▲▼ and press OK

Fig. 34.

TIMER

To go back to the normal TV picture
Press MENU.

To switch off the timer
Select »OFF« in step 3.

To check the remaining time
Press ⊖.

Using the Sleep Timer

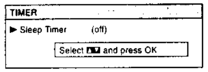
You can select a time period after which the TV automatically switches into standby mode.

1 From the main menu, select »Timer« with △ + or ▽ – and press OK.
The TIMER menu appears. (See Fig. 35.)

2 Press OK.
The time period option changes colour.

3 Select the time period with △ + or ▽ –.
The time period (in minutes) changes as follows:
10 → 20 → 30 → 40 → 50 → 60 → 70 → 80 → 90
└──────────── OFF ────────────┘

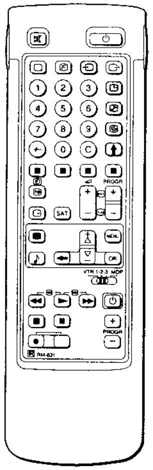
4 After selecting the time period, press OK.
The cursor moves back to the left margin and the timer starts counting.
One minute before the TV switches into standby mode, a message is displayed on the screen.



TIMER
► Sleep Timer (off)
Select ▲▼ and press OK

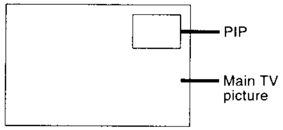
Fig. 35.

1-6. PIP (PICTURE-IN-PICTURE)



Note
RGB input source cannot be displayed in PIP.

With this function you can display a »PIP screen« (small picture) within the main TV picture. In this way you can watch or monitor the video output from any connected equipment (for example from a VTR) while watching TV or vice versa. For information about connection of other equipment, refer to page 22.



Switching PIP on and off

Press ⧉.
The PIP screen will be displayed. The PIP picture will come from the source chosen when the TV was last used.

To switch PIP off
Press ⧉ again.

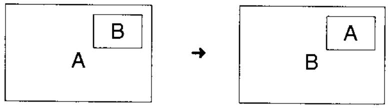
Selecting a PIP source

Press ⇡.
The symbol ⇡ will be displayed at the bottom, left-hand corner of the screen.
Press ⊖ repeatedly until the desired source is indicated (e.g. TV, AV 1, AV 2, YC2, AV 3, YC3, AV 4, YC 4).

Note
If no video source has been connected, the PIP picture will be noisy.

Swapping screens

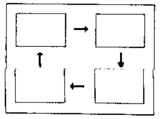
Press ⇄.
The main screen will switch the picture with the PIP screen.



Note
If a TV programme is on the PIP screen and a video source on the main picture, and you want to change channels, first press ⇡ and then the programme buttons or PROGR +/-.

Changing the position of the PIP

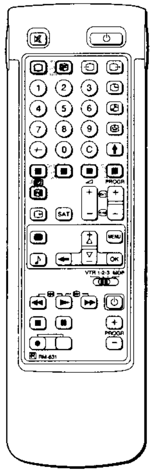
Press ⊞ repeatedly to change the position of the PIP screen within the main screen. There are four different positions available.



Displaying of PIP within Teletext

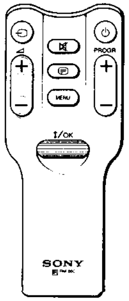
Press ⧉ while teletext is switched on.
The PIP screen will be displayed on the right side of the TV screen, the reduced teletext page will be displayed on the left side.
Press ⧉ again to make the PIP screen disappear.

1-7. TELETEXT



Note
Teletext errors may occur if the broadcasting signals are weak.

With the simple side of the Remote Commander
You can switch teletext on and off, operate Fastext, and directly select page numbers.



Note
Fastext operation is only possible, if the TV station broadcasts Fastext signals.

TV stations broadcast an information service called Teletext via the TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

Direct Access Functions

Switching Teletext on and off

1 Select the TV channel which carries the teletext broadcast you want to watch.

2 Press ⊜ to switch on teletext.
A teletext page will be displayed (usually the index page).
If there is no teletext broadcast, »No text available« is displayed on the information line of the screen.

To switch teletext off
Press ▢.

Selecting a teletext page

With direct page selection
Use the number buttons to input the three digits of the chosen page number.
If you have made a mistake, type in any three digits. Then re-enter the correct page number.

With page-catching
1 Select a teletext page with a page overview (e.g. index page).
2 Press OK. »Page catching« will be displayed on the information line. The last digit if the first displayed page number flashes.
3 Using Δ + or ∇ –, select the desired page and press OK.
The requested page will appear in a few seconds.
Press ⊜ to resume normal teletext reception.

Accessing next or preceding page
Press ⊕ (PAGE +) or ⊖ (PAGE -).
The next or preceding page appears.

Superimposing the teletext display on the TV programme

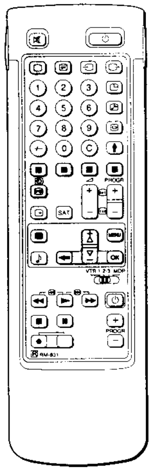
- Press ⊜ once in teletext mode or twice in TV mode.
- Press ⊜ again to resume normal teletext reception.

Preventing a teletext page from being updated

- Press ⊞ (HOLD). The HOLD symbol » ⊞ « displayed on the information line.
- Press ⊜ to resume normal teletext reception.

Using Fastext

With Fastext you can access pages with one key stroke.
When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.
Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after some seconds.



Using the Teletext Menu

This TV is provided with a menu-guided teletext system. When teletext is switched in, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

1 Press MENU. The menu will be superimposed on the teletext display. (See Fig. 36.)

2 Using △ + o ▽ –, select the teletext function you want and press OK. (See Fig. 37.)

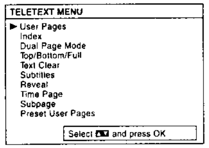


Fig. 36.

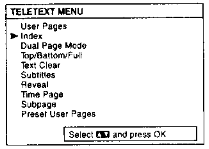


Fig. 37.

USER PAGES/PRESET USER PAGES

See page 21 for information about presetting and operating the user pages.

INDEX

The index will give you an overview of the contents of the teletext and the page numbers.

DUAL PAGE MODE

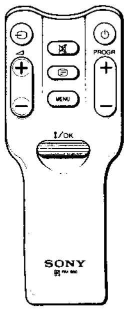
After having selected the function two succeeding teletext pages will be displayed next to each other on the TV screen.

Accessing next or preceding page
Press PROGR +/–.

Page Catching
Press OK. Page Catching is now active on the left teletext page (See also page 18).
While you select a page number on the left page using △ + or ▽ –, the corresponding teletext page will be displayed on the right side of the TV screen.

Note
Some of the features may not be available depending on the Teletext service.

Note
If you press OK again the right teletext page will appear on the left side of the TV screen.



To cancel the function:
Press ←.

TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlarge the teletext display with the ability to scroll up and down. After having selected the function, an information line TOP/BOTTOM/FULL will be displayed. (See Fig. 38.)

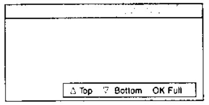


Fig. 38.

Press △ + for »Top« to enlarge the upper half. Keep pressing ▽ – for »Bottom« to enlarge the lower one. Press OK for »Full« to resume the normal size.
Press ⊜ to resume normal teletext reception.

TEXT CLEAR

After having selected the function, you can watch a TV programme while waiting for a requested teletext page to be displayed. (The symbol changes colour) (See Fig. 39.)
Press ⊜ to view the captured page.

Fig. 39.

SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

REVEAL

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line »REVEAL ON/OFF« will be displayed. (See Fig. 40.)

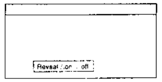


Fig. 40.

Using △ + or ▽ –, select ON to reveal the information or OFF to conceal it again.
Press ⊜ to resume normal teletext reception.

TIME PAGE

Your teletext service will inform you, if a time coded page is available. You may have a page (e.g. an alarm page) displayed at a certain time.

1 Press OK. An information window will be displayed at the bottom of the page. Using △ + or ▽ – select ON and press OK.

2 To select the desired page, enter three digits for the page number (e.g. 301) using the number buttons.

3 To select the desired time, enter four digits for the desired time (e.g. 1800) using the number buttons. Press MENU.
The selected time is displayed at the top in the left-handed corner. At the requested time, the page will be displayed.

Press ⊜ to resume normal teletext mode.

To cancel the request
Select »OFF« for the TIME PAGE setting.

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. After having selected the function, an information line will be displayed.

To select the desired subpage, enter four digits using PROGR +/– or the number buttons. (e.g. enter 0002 for the second page of a sequence).

To cancel the request
Select subpage and press OK.

REVEAL

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line »REVEAL ON/OFF« will be displayed. (See Fig. 40.)

Using △ + or ▽ –, select ON to reveal the information or OFF to conceal it again.
Press ⊜ to resume normal teletext reception.

TIME PAGE

Your teletext service will inform you, if a time coded page is available. You may have a page (e.g. an alarm page) displayed at a certain time.

1 Press OK. An information window will be displayed at the bottom of the page. Using △ + or ▽ – select ON and press OK.

2 To select the desired page, enter three digits for the page number (e.g. 301) using the number buttons.

3 To select the desired time, enter four digits for the desired time (e.g. 1800) using the number buttons. Press MENU.
The selected time is displayed at the top in the left-handed corner. At the requested time, the page will be displayed.

Press ⊜ to resume normal teletext mode,

To cancel the request
Select »OFF« for the TIME PAGE setting.

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. After having selected the function, an information line will be displayed.

To select the desired subpage, enter four digits using PROGR +/– or the number buttons. (e.g. enter 0002 for the second page of a sequence).

To cancel the request
Select subpage and press OK.

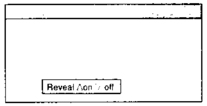


Fig. 40.

1-8. CONNECTING AND OPERATING OPTIONAL EQUIPMENT

To connect a VTR using the ╥ terminal
Connect the aerial output of the VTR to the aerial terminal ╥ of the TV.
We recommend that you tune in the video signal to programme number »0«. For details see »Preset channels manually« on page 8.

If the picture or the sound is distorted
Move the VTR away from the TV.

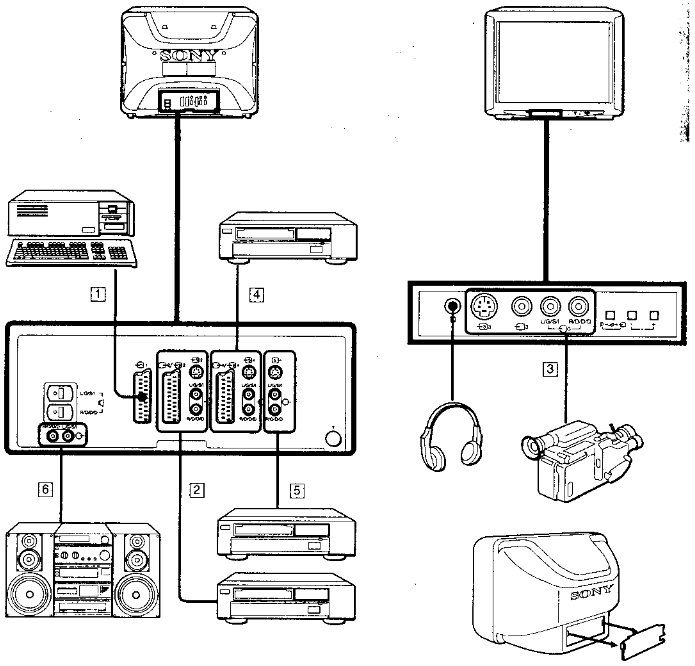
Note:
After having connected all optional equipment to the TV, attach the supplied cover onto the rear panel (See illustration at the right).

S video input (Y/C input)
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Separating the Y and C signals prevents them from interfering with one another, and therefore improves picture quality (especially luminance).
This TV is equipped with 3 S Video input jacks through which these separated signals can be input directly.

When connecting a monaural VTR
Connect only the white ⊖ jack to both the TV and VTR.

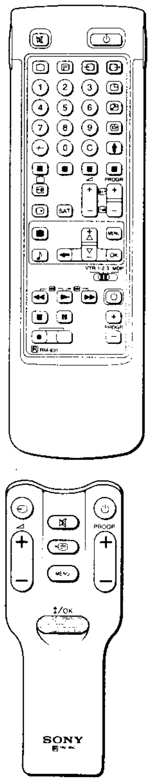
Connecting Optional Equipment

You can connect optional audio-video equipment to this TV such as VTRs, video disc players, and stereo systems.



Acceptable input signal	Available output signal
1 Normal audio/video and RGB signal	Video/audio from TV tuner
2 Normal audio/video and S video signal	Video/audio from selected source
3 Normal audio/video and S video signal	No outputs
4 Normal audio/video and S video signal	Video/audio displayed on TV screen (monitor out)
5 No inputs	S video/audio signal displayed on TV screen (monitor out)
6 No inputs	Audio signal (variable)

Selecting input with PROGR +/- or number buttons
You can preset video input sources to the programme positions so that you can select them with PROGR +/– or number buttons. For details, see »Preset channels manually« on page 8.



Selecting input and output

This section explains how to view the video input picture (of the video source connected to your TV), and how to select the output signal using direct access buttons or the menu system.

Selecting input

Press ⊖ repeatedly to select the input source.
The symbol of the selected input source will appear.

⊖ 1

To go back to the normal TV picture

Press ▢.

Input modes

Symbol	Input signal
⊖ 1	Audio/video input through the ⊛ 1 connector
⊛	RGB input through the ⊛ 1 connector
⊖ 2	Audio/video input through the ⊖→ 2 / ⊜ 2 connector
⊜ 2	S video input through the ⊖→ 2 / ⊜ 2 or ⊜ 2 connector
⊖ 3	Audio/video input through ⊖ 3 and ⊖ on the front
⊜ 3	S video input through the ⊜ 3 connectors on the front (4-pin connector)
⊖ 4	Audio/video input through the ⊖→ 4 / ⊜ 4 connector
⊜ 4	S video input through the ⊖→ 4 / ⊜ 4 or ⊜ 4 connector (4-pin connector)

You can also select the input mode using the P→◿→⊖ and –/+ buttons on the TV.

In this case, first select ⊖ , and then press –/+ buttons to select the input.

Selecting the output

The ⊖→ 2 / ⊜ 2 connector outputs the source input from the other connectors.

Press ⊖→ repeatedly to select the output.
The symbol of the selected output source appears.

1 ⊖→

Output modes

Symbol	⊖→ 2 / ⊜ 2 connector outputs
1 ⊖→	The audio/video signal from the ⊛ 1 connector
2 ⊖→	The audio/video signal from the ⊖→ 2 / ⊜ 2 connector
2 ⊜→	The audio/S video signal from the ⊖→ 2 / ⊜ connector
3 ⊖→	The audio/video signal from the ⊖ 3 and ⊖ 3 connectors
3 ⊜→	The audio/S video signal from the ⊜ 3 and ⊖ 3 connectors
4 ⊖→	The audio/video signal from the ⊖→ 4 / ⊜ 4 connector
4 ⊜→	The audio/S video signal from the ⊖→ 4 / ⊜ 4 connector
TV ⊖→	The audio/video signal from the ╥ aerial terminal

1-9. FOR YOUR INFORMATION

Checking and selecting the input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen and PIP screen, and which output source is selected. You can also select them on the menu display.

1 Select »Video Connection« with △ + or ▽ – and press OK. The VIDEO CONNECTION menu appears. (See Fig. 43).
You can see which source is selected for the TV and PIP input, and for the output. If you want to select the input and output on this menu, go on to the next step.

2 Select TV screen (input source for the TV screen), PIP (input source for the PIP screen), or Output (output source) with △ + or ▽ – and press OK. One of the source items changes colour. (See Fig. 44.)

3 Select the desired source with △ + or ▽ –. (See Fig. 45.)
For details about each source, see the table on page 23.

4 Press OK.
The selected source is confirmed, and the cursor appears. (See Fig. 46.)

5 Repeat steps 2 to 4 to select the source for other inputs or outputs.

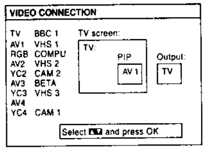

VIDEO CONNECTION
TV BBC 1
AV1 VHS 1
RGB COMPU
AV2 VHS 2
YC2 CAM 2
AV3 BETA
YC3 VHS 3
AV4
YC4 CAM 1
TV screen:
TV:
PIP
AV 1
Output:
TV
Select ▲▼ and press OK

Fig. 43

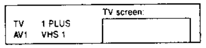

TV 1 PLUS
AV1 VHS 1
TV screen:

Fig. 44

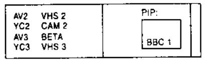

AV2 VHS 2
YC2 CAM 2
AV3 BETA
YC3 VHS 3
PIP:
BBC 1

Fig. 45

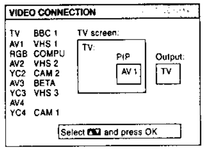

VIDEO CONNECTION
TV BBC 1
AV1 VHS 1
RGB COMPU
AV2 VHS 2
YC2 CAM 2
AV3 BETA
YC3 VHS 3
AV4
YC4 CAM 1
TV screen:
TV:
PIP
AV 1
Output:
TV
Select ▲▼ and press OK

Fig. 46

Remote Control of Other Sony Equipment

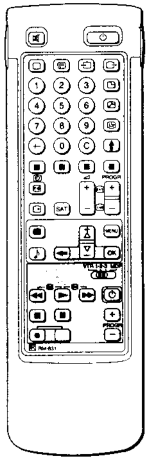
You can use the TV Remote Commander to control other remote-controlled equipment. The buttons for video operation have been factory-set to control most of Sony video equipment, such as: Beta, 8mm or VHS VTRs or video disc players.

Tuning the Remote Commander to Sony equipment

1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:

VTR 1: Beta or ED Beta VTR
VTR 2: 8mm VTR
VTR 3: VHS VTR
MDP: Video disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.
If your video equipment is furnished with a COMMAND MODE selector set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.
If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.



When recording
When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

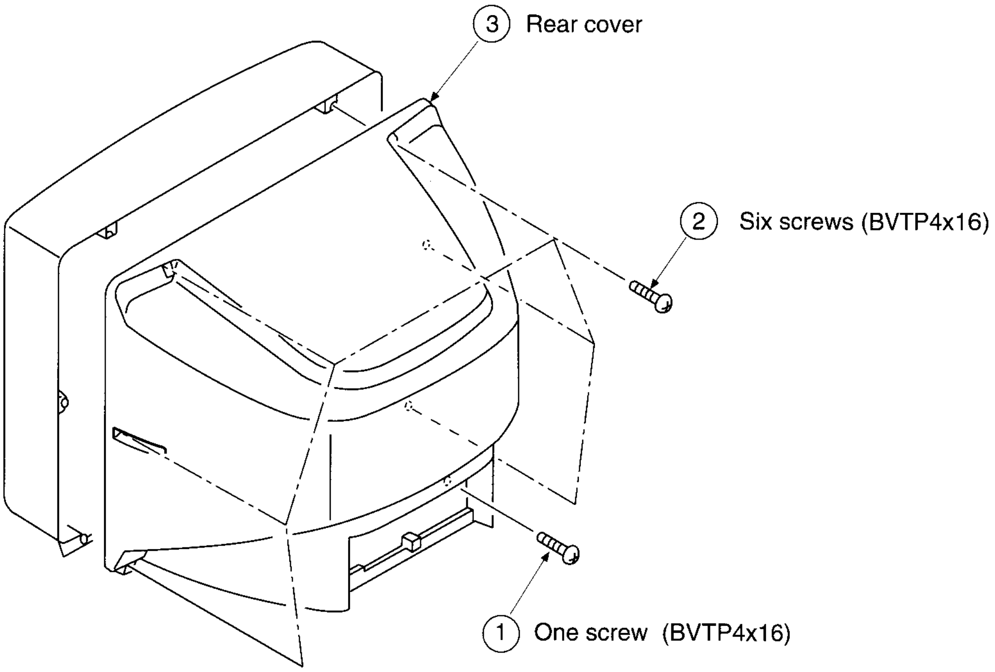
Here are some simple solutions to problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	• Plug the TV in. • Press ⏼ on the TV. (If ⏻ indicator is on, press ▭ or a programme number on the Remote Commander.) • Check the aerial connection. • Check if the selected video source is on. • Turn the TV off for 3 or 4 seconds and then turn it on again using ⏼.
Poor or no picture (screen is dark), but good sound	• Press ■ to enter the PICTURE CONTROL menu and adjust »Brightness«, »Contrast« and »Colour«.
Poor picture quality when watching a RGB video source	• Press ⇥ repeatedly to select ⊸.
Good picture but no sound	• Press ◿ +. • If 🔇 is displayed on the screen, press 🔇.
No colour for colour programmes	• Press ■ to enter the PICTURE CONTROL menu, select »Reset«, then press OK.
Remote Commander does not function	• Replace battery.

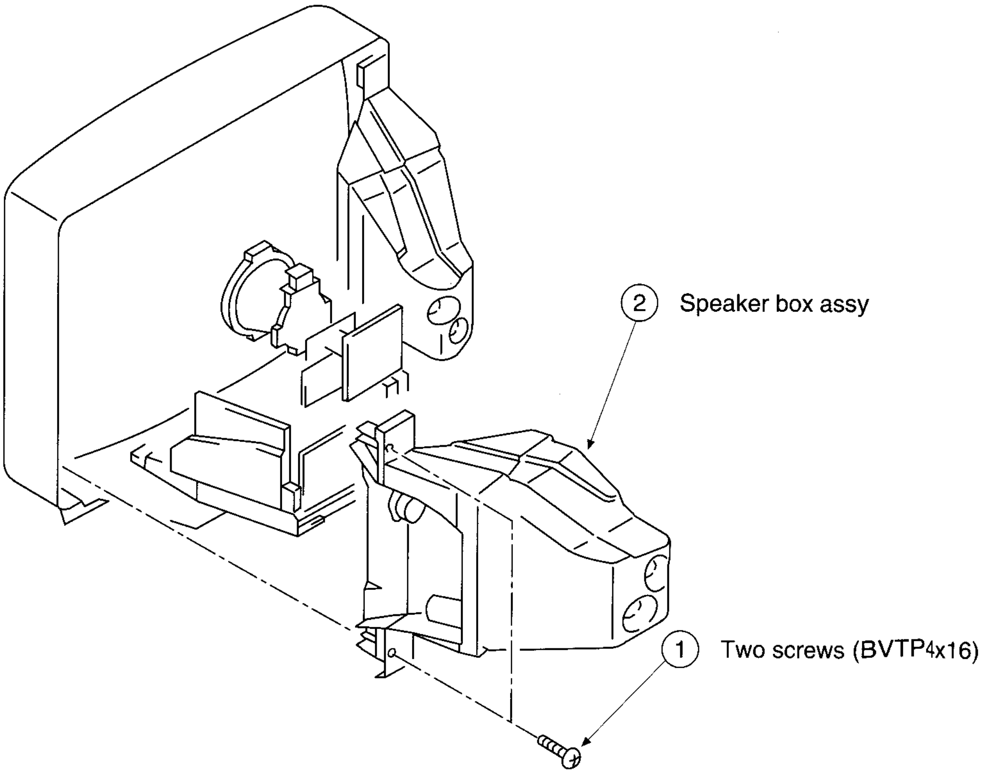
If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

SECTION 2
DISASSEMBLY

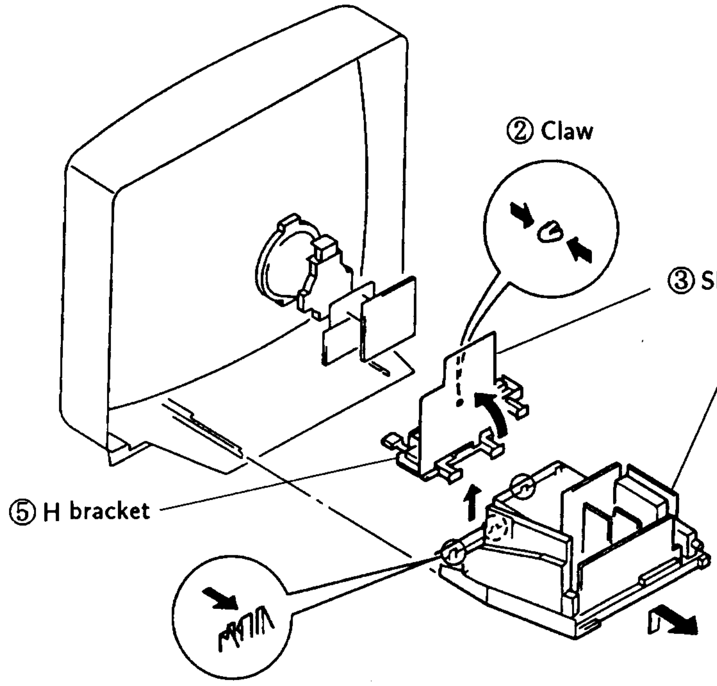
2-1. REAR COVER REMOVAL


③ Rear cover
② Six screws (BVTP4x16)
① One screw (BVTP4x16)

2-2. SPEAKER REMOVAL


② Speaker box assy
① Two screws (BVTP4x16)

2-3. CHASSIS ASSY REMOVAL

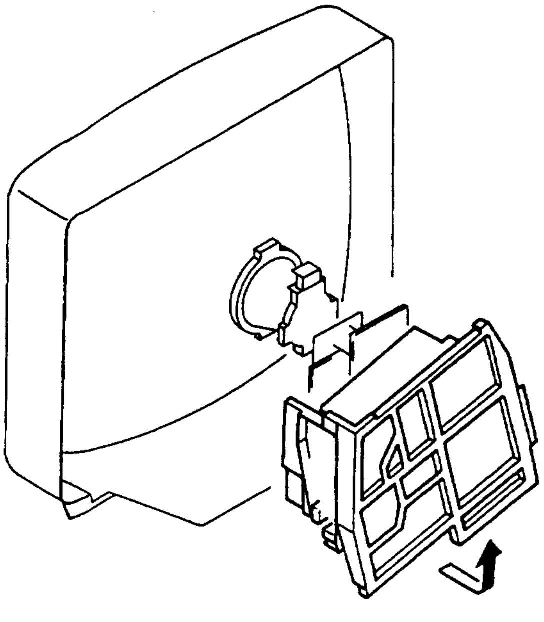


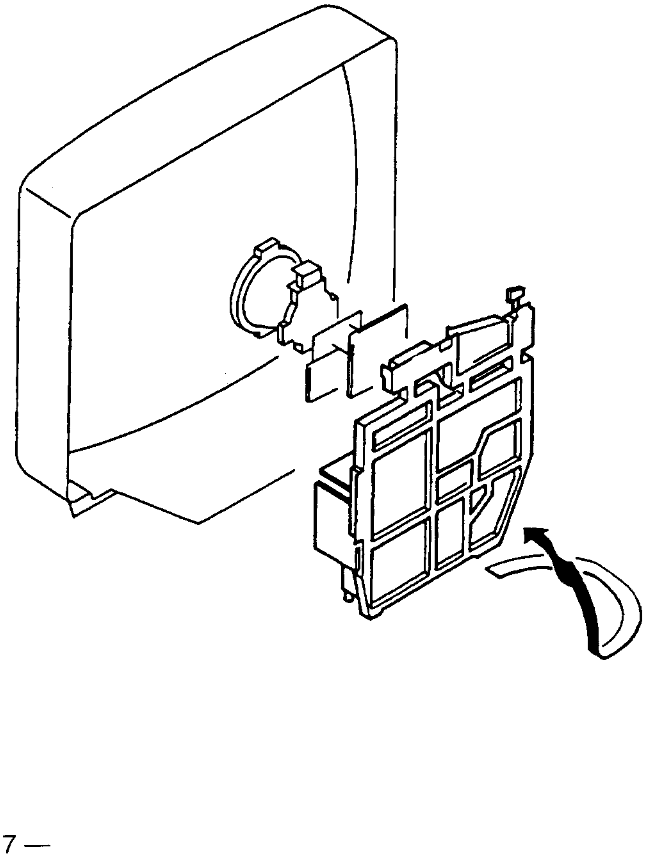
① After the assy of the chassis, lift and pull out the rear part of the chassis toward the rear.

④ Push the three claws of the chassis in the direction of the arrow and remove the H bracket upwards.

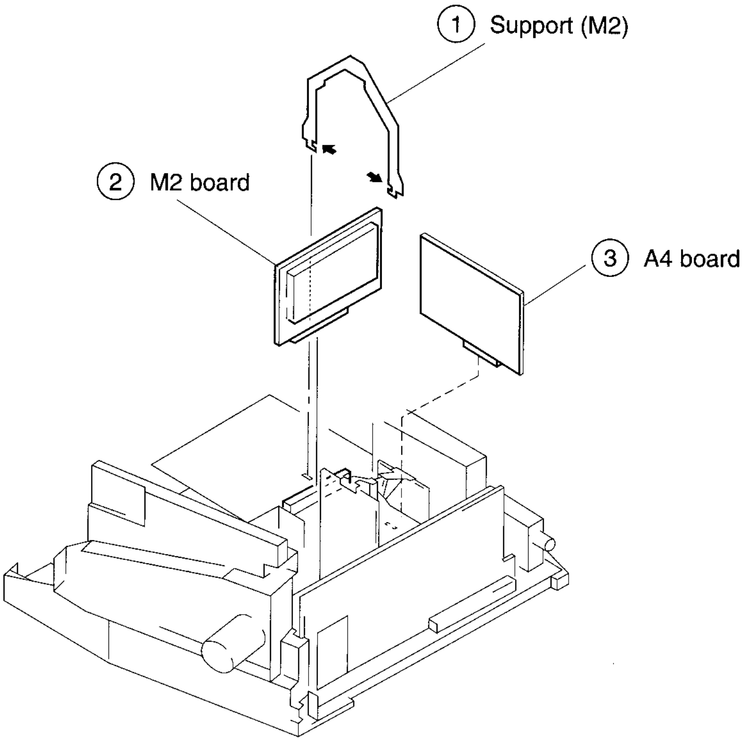
2-4. SERVICE POSITION

※ Remove the H bracket from the chassis assy and then perform the following servicing.
(Refer to 2-3. CHASSIS ASSY REMOVAL)

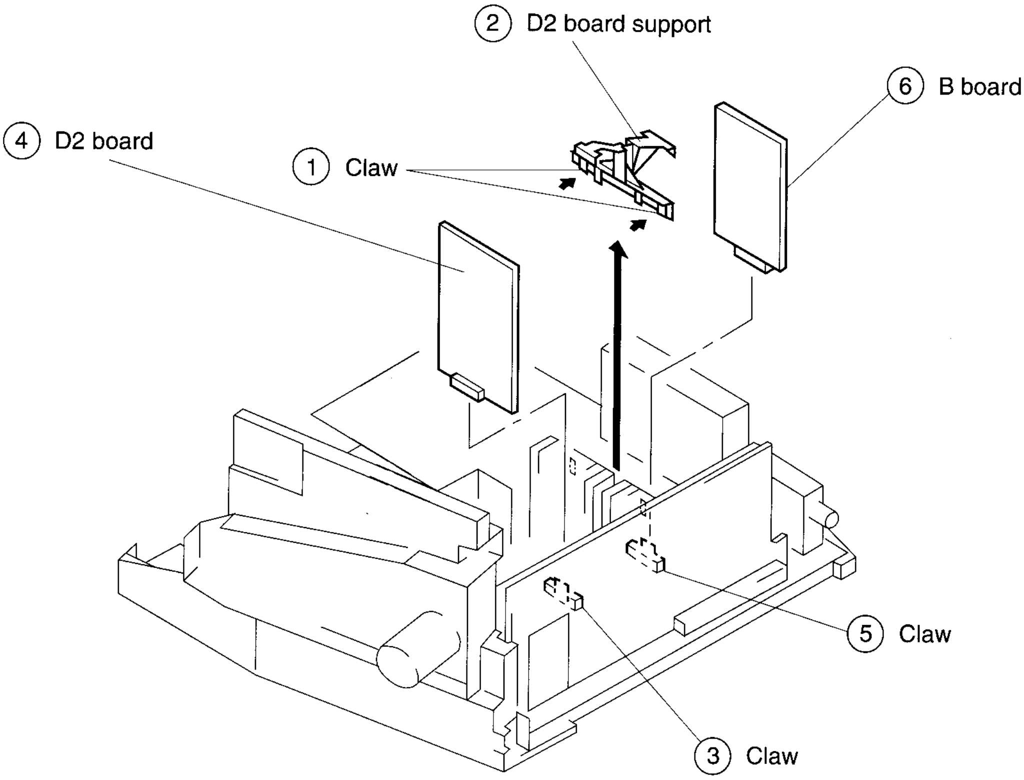




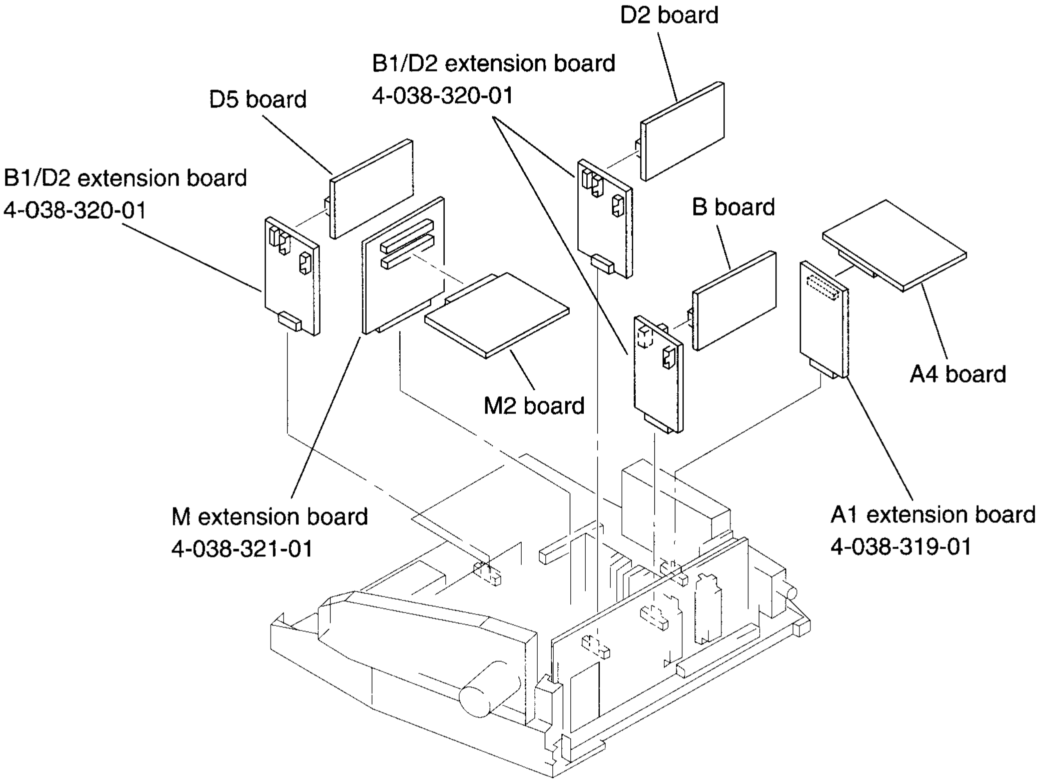
2-5. M2 AND A4 BOARD REMOVAL


① Support (M2)
② M2 board
③ A4 board

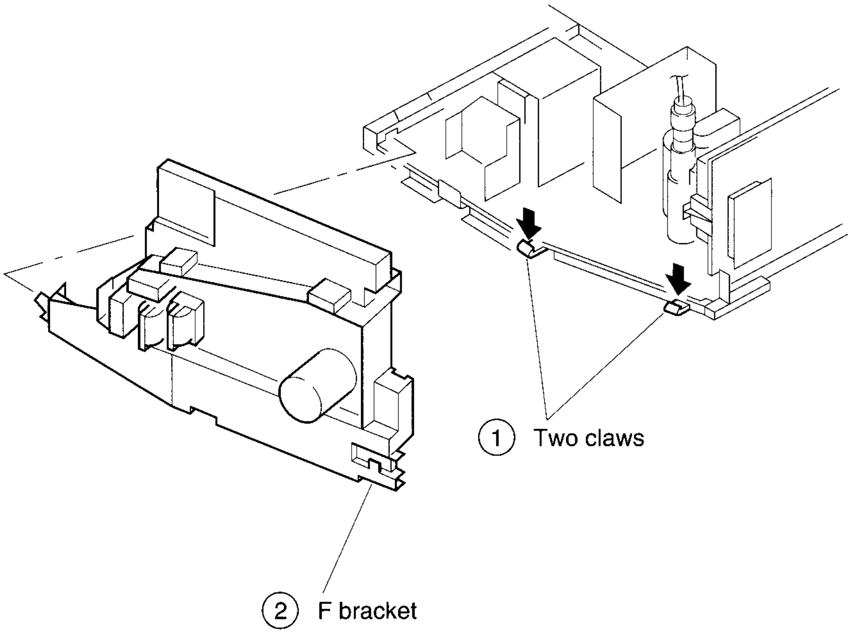
2-6. D2 AND B BOARD REMOVAL


② D2 board support
⑥ B board
④ D2 board
① Claw
⑤ Claw
③ Claw

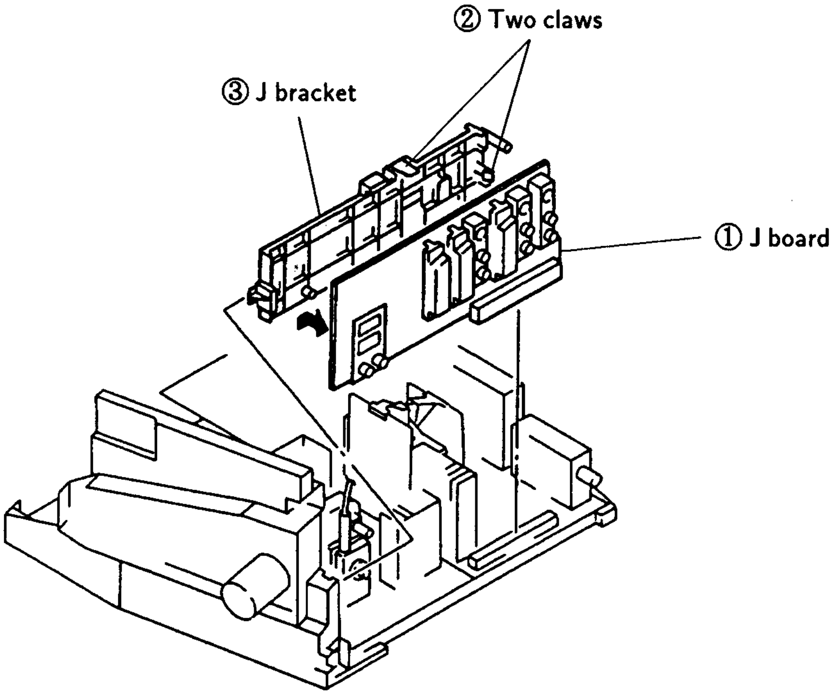
2-7. EXTENSION BOARDS


D2 board
B1/D2 extension board
4-038-320-01
D5 board
B1/D2 extension board
4-038-320-01
B board
A4 board
M2 board
M extension board
4-038-321-01
A1 extension board
4-038-319-01

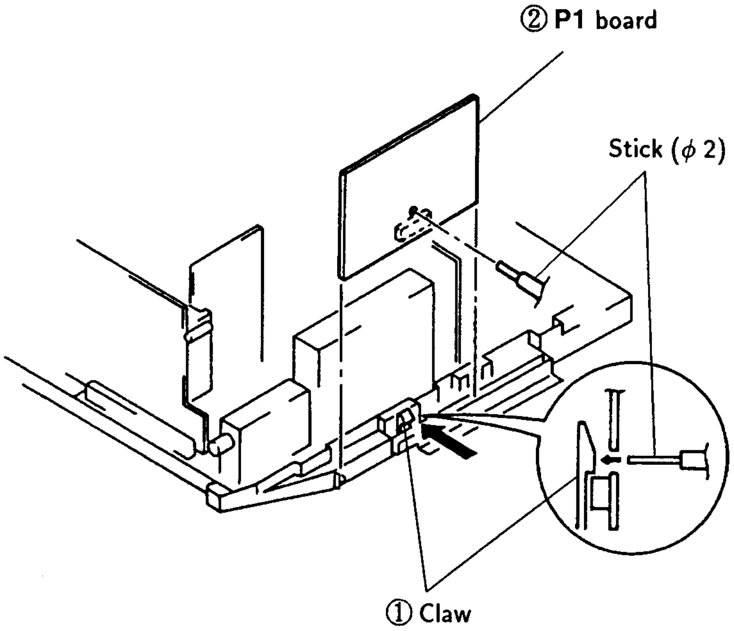
2-8. F BRACKET REMOVAL


① Two claws
② F bracket

2-9. J BOARD REMOVAL

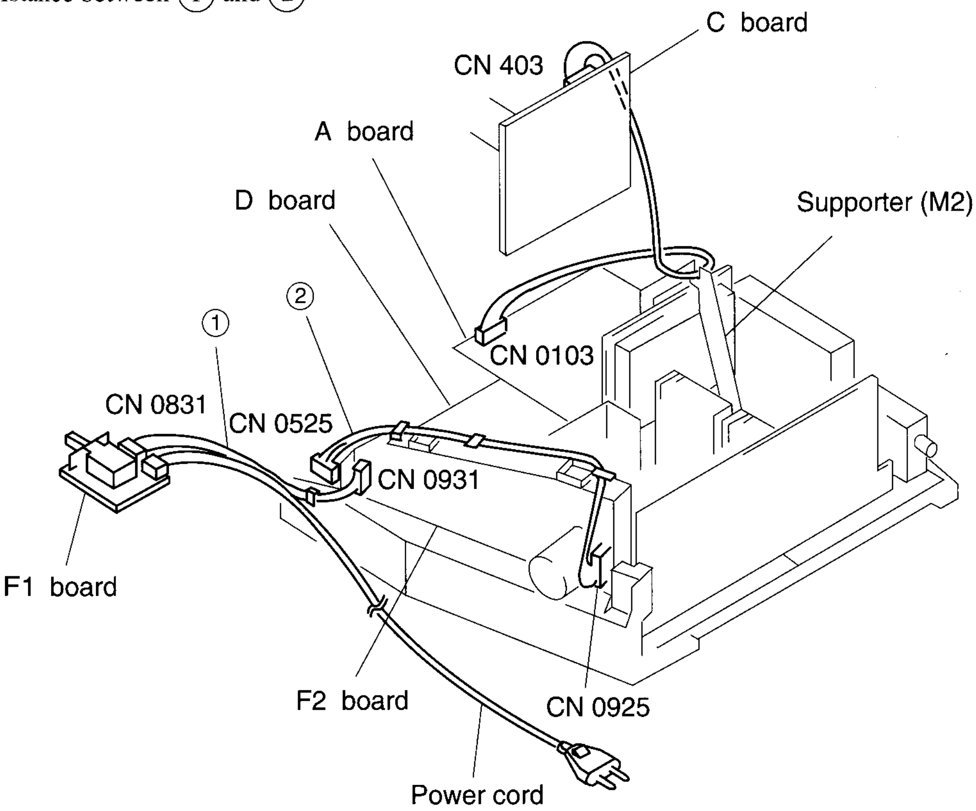

② Two claws
③ J bracket
① J board

2-10. P1 BOARD REMOVAL

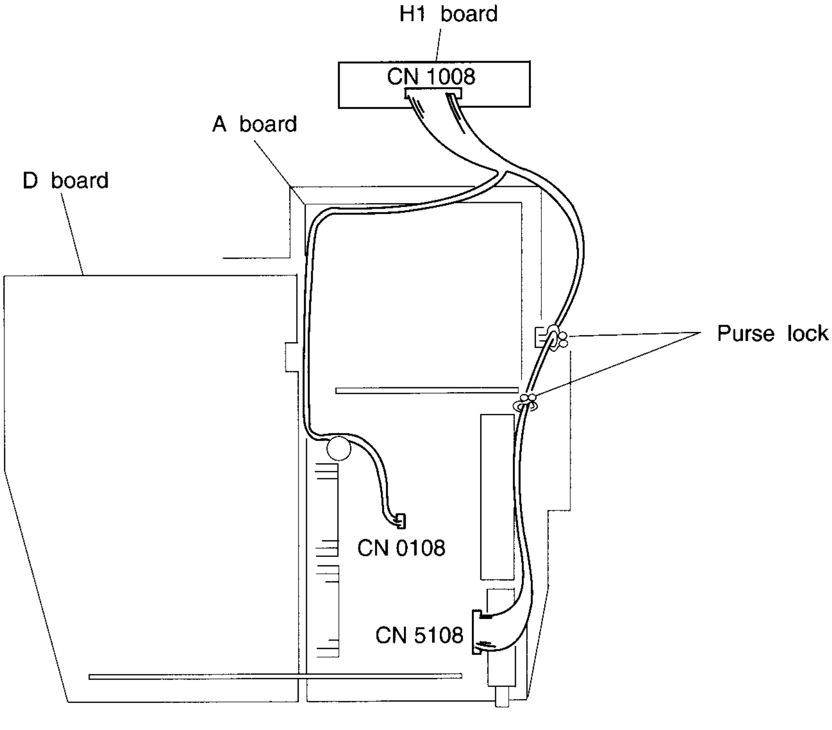

② P1 board
Stick (ϕ 2)
① Claw

2-11-1. WIRE DRESSING

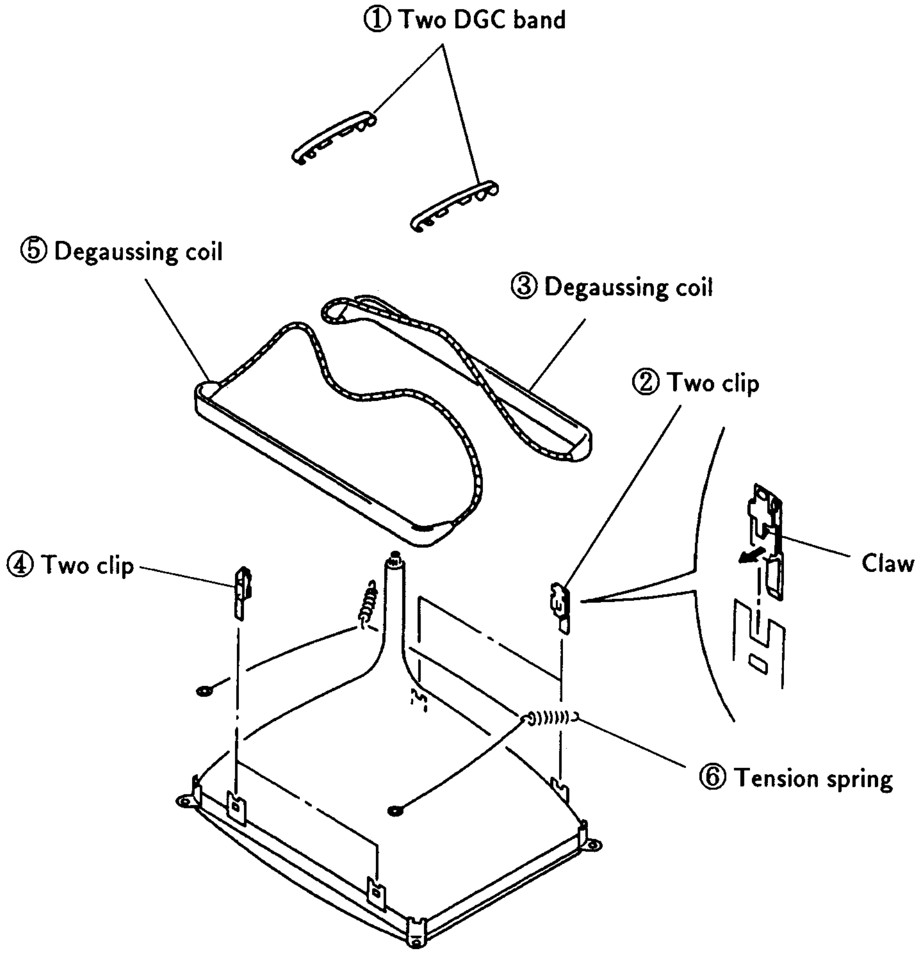
* Keep distance between ① and ②


C board
CN 403
A board
D board
Supporter (M2)
②
①
CN 0103
CN 0831
CN 0525
CN 0931
F1 board
F2 board
CN 0925
Power cord

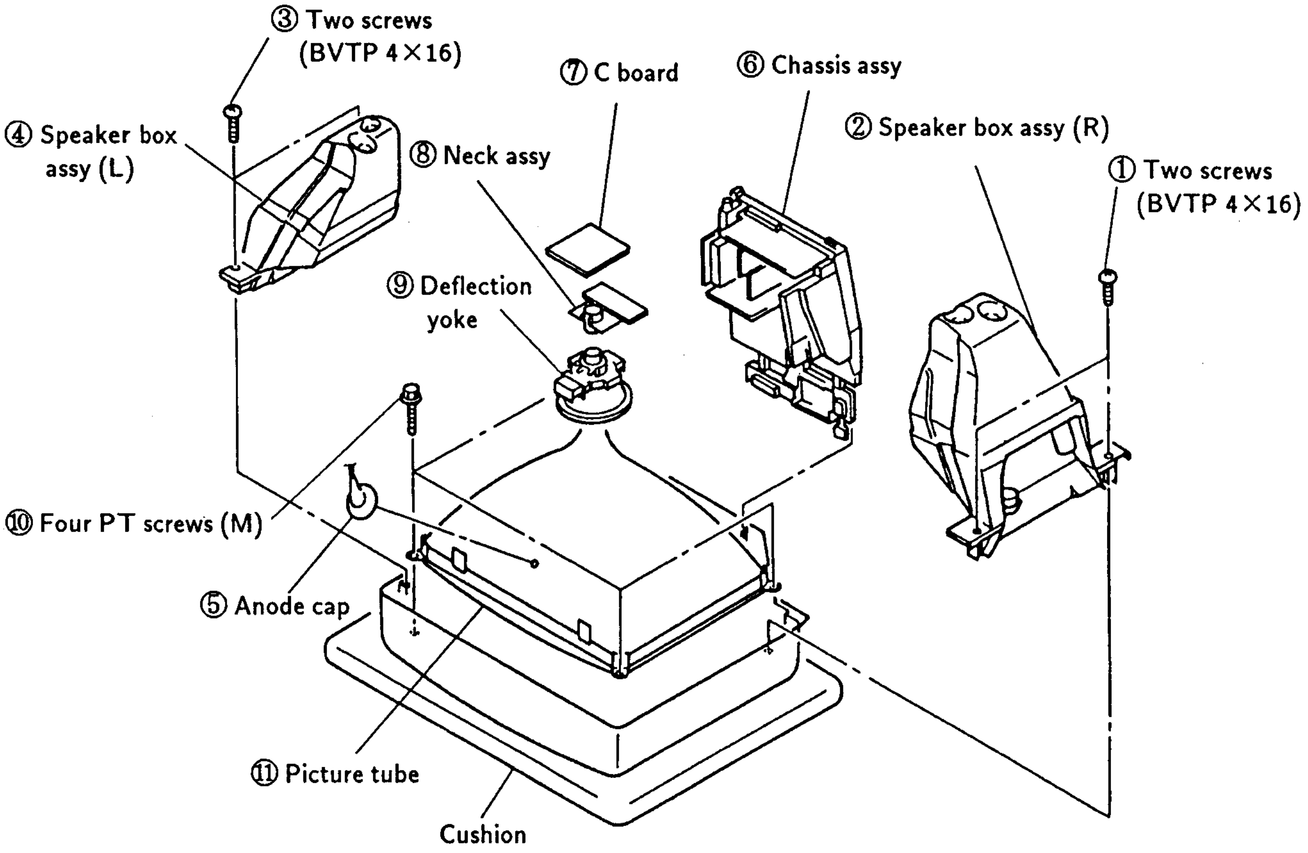
2-11-2. WIRE DRESSING


H1 board
CN 1008
A board
D board
Purse lock
CN 0108
CN 5108

2-12. DEGAUSSING COIL REMOVAL


① Two DGC band
⑤ Degaussing coil
③ Degaussing coil
② Two clip
Claw
④ Two clip
⑥ Tension spring

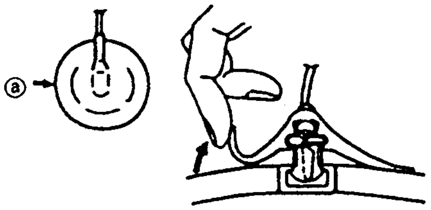
2-13. PICTURE TUBE REMOVAL


③ Two screws (BVTP 4×16)
④ Speaker box assy (L)
⑦ C board
⑥ Chassis assy
② Speaker box assy (R)
① Two screws (BVTP 4×16)
⑧ Neck assy
⑨ Deflection yoke
⑩ Four PT screws (M)
⑤ Anode cap
⑪ Picture tube
Cushion

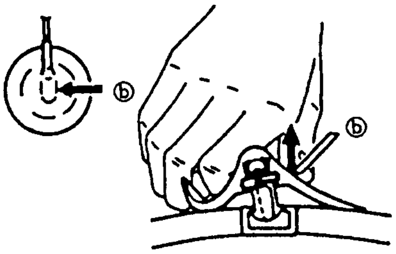
• REMOVAL OF ANODE - CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT chield or carbon painted on the CRT, after removing the anode.

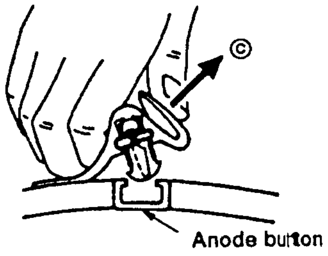
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.


ⓒ
Anode button

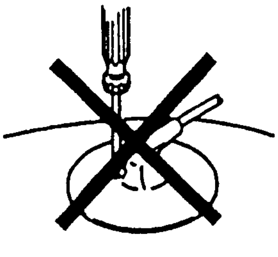
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

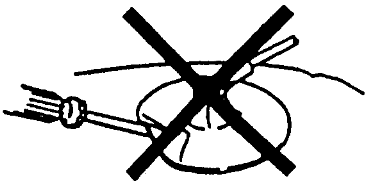
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :

◑ Contrast .... 80% (or remote control normal)

☼ Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   Contrast } normal
   Brightness }
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig.3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Fig.3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig.3-4)

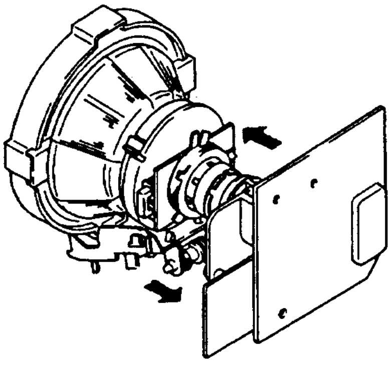


Fig.3-1

Fig.3-2

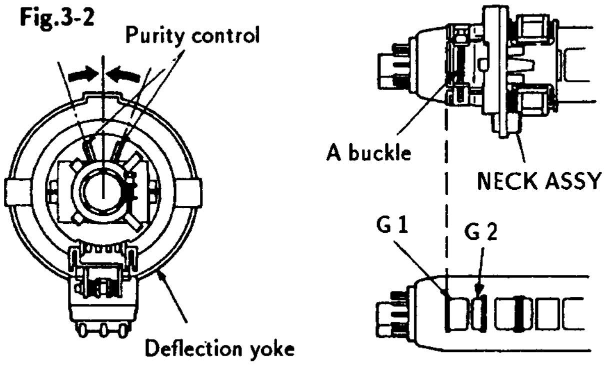
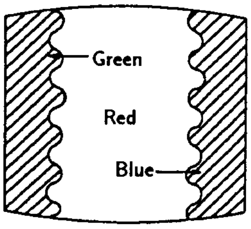
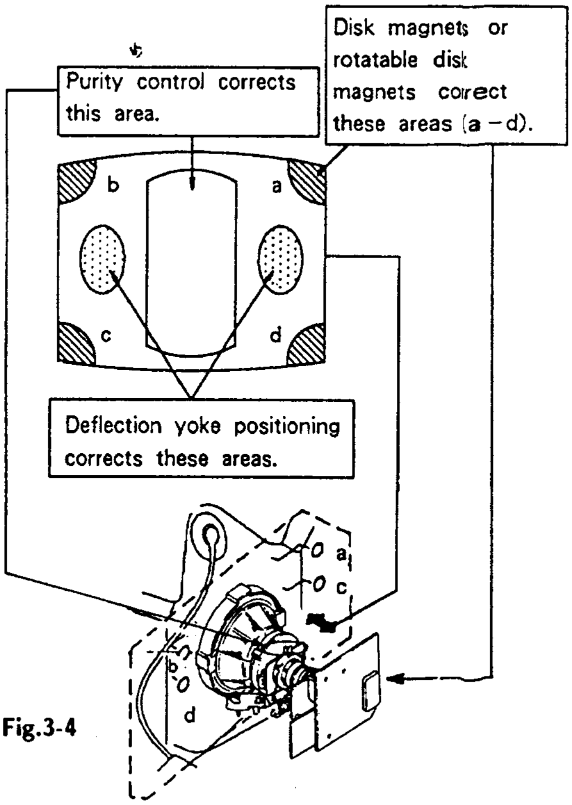


Fig.3-3





Purity control corrects this area.

Disk magnets or rotatable disk magnets correct these areas (a – d).

Deflection yoke positioning corrects these areas.

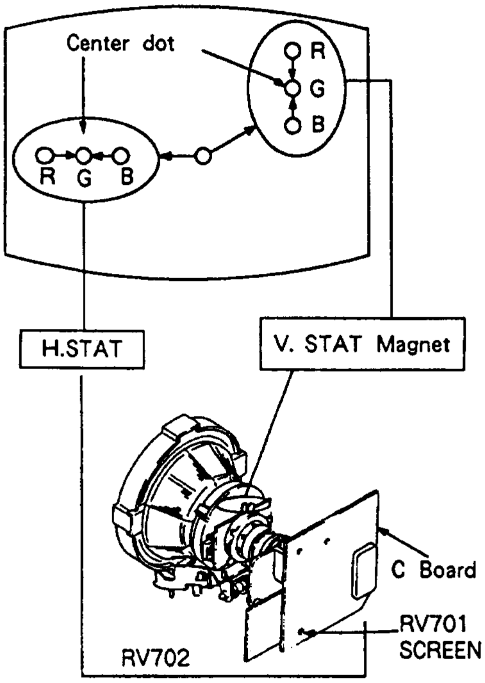
Fig.3-4

3-2. CONVERGENCE

Preparations :

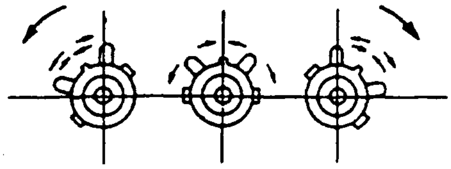
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence



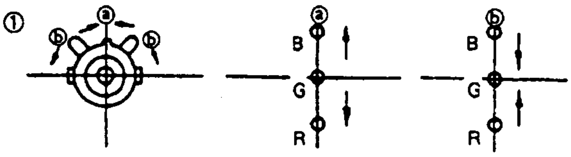
1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

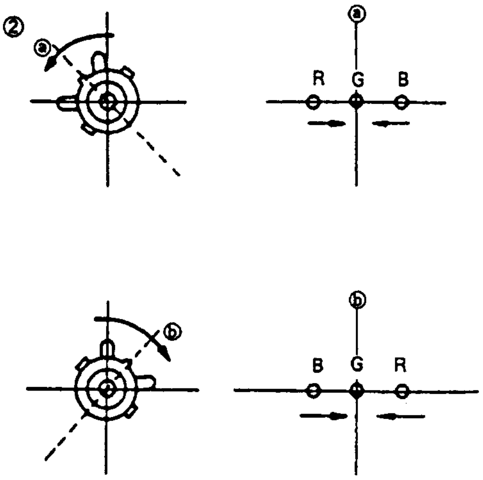


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.

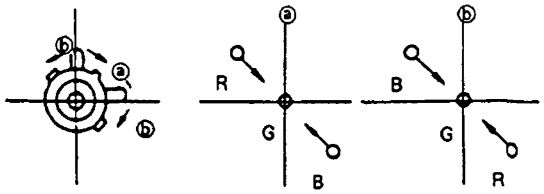
①



②



③



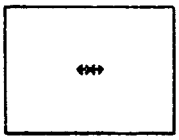
(2)Dynamic convergence adjustment

1. Adjust horizontal convergence located at the center position of the screen with H STAT VR.
2. Enter into service mode. (Refer to the section 2 "Electrical Adjustment" on how to enter service mode.)
3. Select CXA 1526 on menu.
4. Select each item and adjust them so that each item attains optimal convergence.
5. Press [OK] button to write the data.

CXA 1526

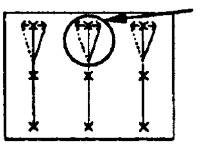
Item No.	Adjustment item	Data Amout
01	DC SHIFT	32
02	UPPER Y BOW	4
03	LOWER Y BOW	5
04	H AMP	48
05	H TILT	29
06	UPPER COR BOW	32
07	UPPER TILT	
08	LOWER COR BOW	32
09	LOWER TILT	32

R.G.B.dots movement on the screen of the set



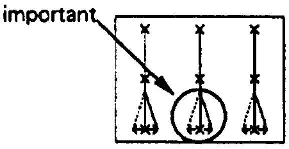
DC SHIFT

Fine adjustment of H STAT



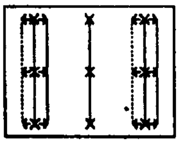
UPPER Y BOW

Adjustment of Y BOW of the upper section of the screen.



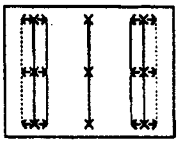
LOWER Y BOW

Adjustment of Y BOW of the lower section of the screen.



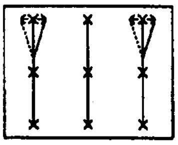
H AMP

H AMP adjustment



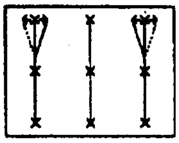
H TILT

H TILT adjustment



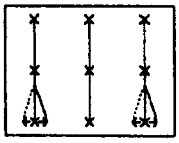
UPPER COR BOW

Adjustment of C BOW of the upper section of the screen.



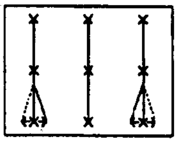
UPPER TILT

Adjustment of TILT of the upper section of the screen.



LOWER COR BOW

Adjustment of C BOW of the lower section of the screen.

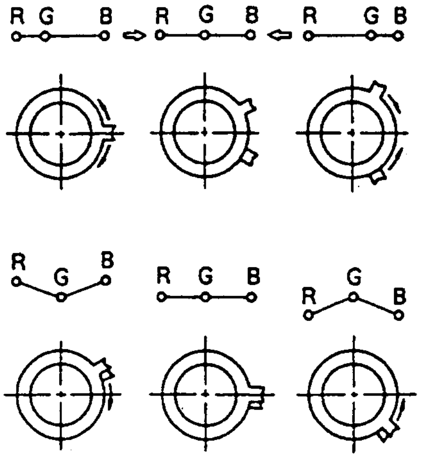


LOWER TILT

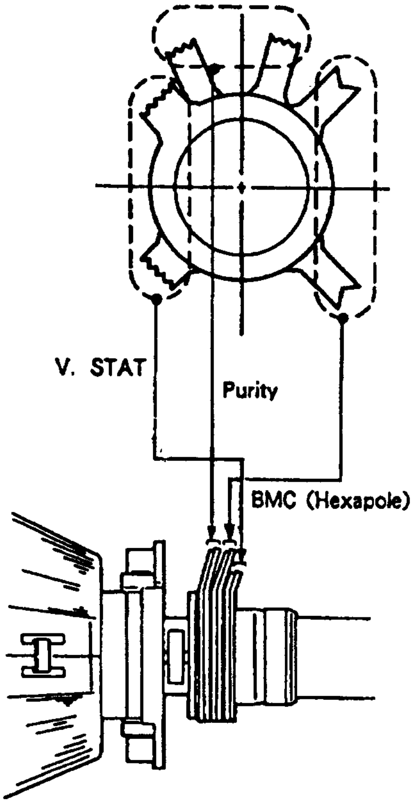
Adjustment of TILT of the lower section of the screen.

At this time, H.TILT, H.AMP, UPPER TILT, UPPER COR, BOW, LOWER TILT, and LOWER COR, BOW look like all the same, but the movement of the right and left dots are reverse in all the TILT system. (Pay attention to the dotted lines.)

- Operation of BMC (Hexapole) Magnet

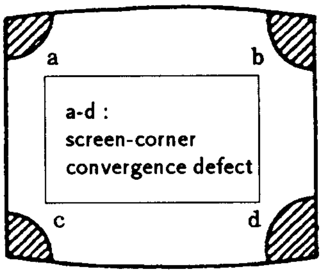

R G B
R G B
R G B
R G B
R G B
R G B

- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

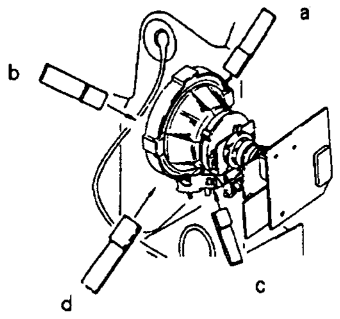

V. STAT
Purity
BMC (Hexapole)

(3) Screen corner convergence

If you cannot adjust corner convergence properly, correct them with permalloy.


a
b
a-d :
screen-corner
convergence defect
c
d

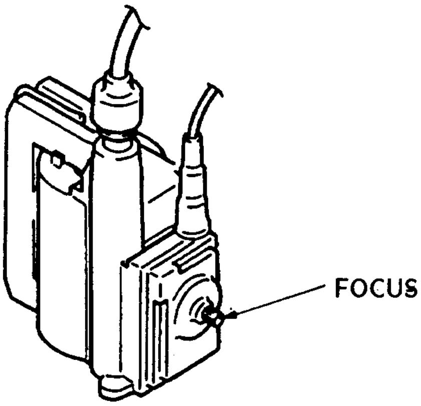
Install the permalloy assembly for the section with faulty.



Permalloy

3-3. FOCUS

Adjust the focus to optimize the screen.



3-4. WHITE BALANCE

Screen G2 Setting

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G 2 control RV 701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" to how to enter service mode.)
3. Select CXA 1587 on menu.

CXA 1587

Item No.	Adjustment item	Data amout
09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.

4. Set picture to MAX.
5. Adjust G-DRIVE B-DRIVE with ▲, ▼ buttons so that the white balance becomes optimum.
6. Press OK button to write the data for each item.
7. Set picture to MIN.
8. Adjust G-AUTO CUT OFF, B-AUTO CUT OFF, R-MANUAL CUT OFF, G-MANUAL CUT OFF and B-MANUAL CUT OFF with ▲, ▼ buttons so that the white balance becomes optimum.
9. Press OK button to write the data for each item.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander, RM-831.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing any two buttons on the front panel.

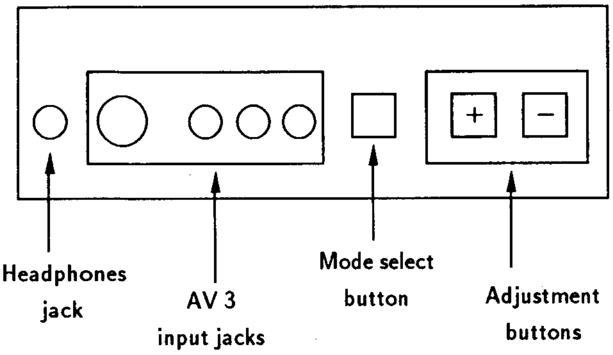


Fig.4-1

2. "TT" will appear on the upper right corner of the screen.

Command operation in service mode

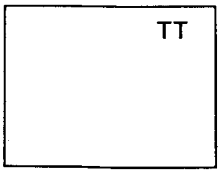


Fig.4-2

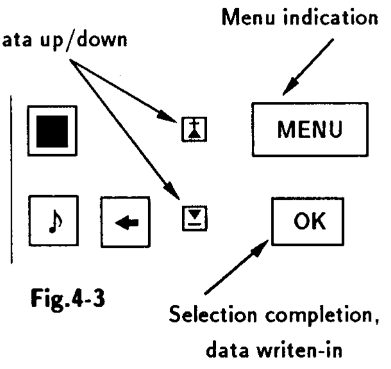
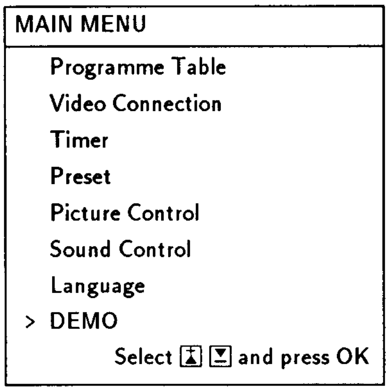

Item selection, data up/down
Menu indication
▲
▼
MENU
OK
Selection completion, data writen-in

Fig.4-3

3. Press the MENU button of the commander to get the menu on screen.

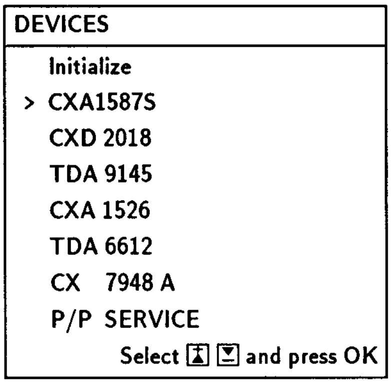


MAIN MENU

Programme Table
Video Connection
Timer
Preset
Picture Control
Sound Control
Language
> DEMO
Select ▲ ▼ and press OK

Fig.4-4

4. Press the ▲ and ▼ buttons of the commander and move > to DEMO.
5. Press OK button to proceed to the next menu.
6. The menu of fig.4-5 will appear on screen. Select DEVICE corresponding to the adjustment item from the table on next page.



DEVICES

Initialize
> CXA1587S
CXD 2018
TDA 9145
CXA 1526
TDA 6612
CX 7948 A
P/P SERVICE
Select ▲ ▼ and press OK

Fig.4-5

7. If adjustment item is CXA1587S, press the ▼ button and move > to CXA1587S.

CXA1587S

Item No.	Adjustment item	Data Amout
01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	7
06	RGB PICTURE	13
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.

8. Press OK button to get the next selection menu.
9. Press ▼ button and move > to the adjustment item and press OK button.
10. Press the ▲ and ▼ buttons to change the data in order to comply each standard.
11. Press OK button to write data.
12. Turn off the power to quit service mode when completing the adjustment.

CXA1587S

Item No.	Adjustment item	Data Amout
01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	7
06	RGB PICTURE	13
07	SUB CONTRAST	ADJ.
08	SUB COLOR	ADJ.
09	SUB BRIGHT	ADJ.
10	SUB HUE	7
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.
21	GAMMA LEVEL	0
22	DC TRANSFER RATIO	3
23	DINAMIC PICTURE	0
24	Y FILTER ADJ	ADJ.
25	Y DELAY TIME	15
26	Y DELAY SWITCH 1	0
27	Y DELAY SWITCH 2	1
28	SHARPNESS LIMIT	ON
29	ALL BLK	OFF
30	H SHIFT	32
31	DAC TEST	ON
32	PRE/OVER SHOOT	12
33	SHARPNESS FO	2
34	SUB SHARPNESS	3
35	R MUTE	OFF
36	G MUTE	OFF
37	B MUTE	OFF
38	AGING 1	OFF
39	AGING 2	OFF
40	AKB OFF	ON
41	INHIBIT RGB	OFF
42	FORCED RGB	OFF
43	V/2 V	OFF
44	AXIS	PAL
45	HUE SW	OFF
46	V EXTENTION	OFF
47	AFC 1	1
48	AFC 2	0
49	AFC OFF	ON
50	REF.POSITION	0

CXA 1526

Item No.	Adjustment item	Data Amout
01	DC SHIFT	32
02	UPPER Y BOW	4
03	LOWER Y BOW	5
04	H.AMP	48
05	H TILT	29
06	UPPER COR BOW	32
07	UPPER TILT	32
08	LOWER COR BOW	32
09	LOWER TILT	32

CXD 2018

Item No.	Adjustment item	Data Amout
01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAN	OFF
19	INTERLACE	ON
20	H SHIFT	32
21	N/S CORRECTION	ADJ.

Typical Value (OSD based)when receiving PAL Philips pattern.

TDA 6612

Adjustment item	Data Amout
Stereo-Separation	30

Should be adjusted twice 4 : 3 and 16 : 9 mode.

Y FILTER ADJUSTMENT

1. Input PAL RED pattern.
2. Connect an oscilloscope to CN 0403 ① pin (R IN) on the C board.
3. Enter into service mode and press 3, 8.
4. Adjust data by △ or ▽ to minimize the chroma element of CN 0403 ① pin.

SUB BRIGHTNESS ADJUSTMENT

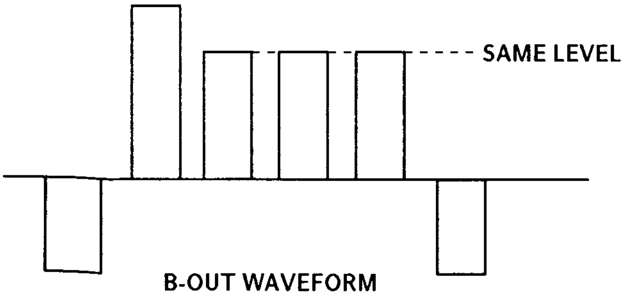
1. Input Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of the grey scale and CUT -OFF 20-IRE glitter slightly.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains small 100% area on the Black Back ground.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Adjust data so that 2.5 Vp-p can be obtained at ① CN 0403 (R IN).

SUB COLOR ADJUSTMENT

1. Input PAL color bar.
2. Connect an oscilloscope to CN 0403 ③ pin (B IN) on the C board.
3. Enter into service mode and press 22 of CXA 1587 S, 8 SUB COLOR.
4. Adjust data so that the right sides of the waveform will be the same.



B-OUT WAVEFORM

STEREO-SEPARATION ADJUSTMENT

1. Input 1kHz stereo signal to the L-ch and 400Hz stereo signal to the R-ch.
2. Enter into service mode and press 19.
3. Adjust data so that sound does not leak to the R-ch and the L-ch.

DRIVE AND CUT OFF

See direct test mode list attached and refer to sub brightness or such for adjustment method.

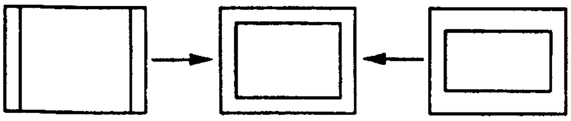
DEFLECTION SYSTEM ADJUSTMENT

1. Enter into service mode and select CXD 2018.
2. Select and adjust each item in order to get an optimum image.

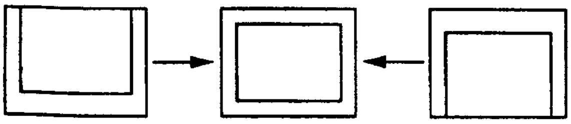
CXD 2018

Item No.	Adjustment item	Data Amout
01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	NON INTERLACE	ON
20	H SHIFT	32
21	N/S CORRECTION	ADJ.

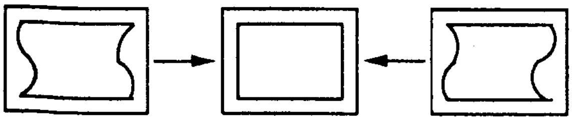
V SIZE



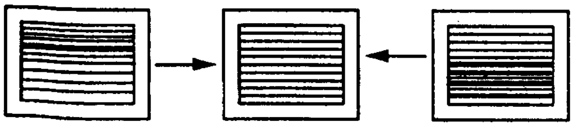
V SHIFT



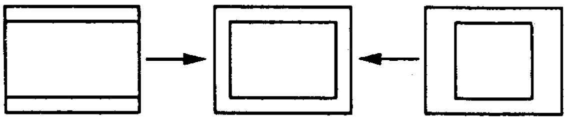
S CORRECTION



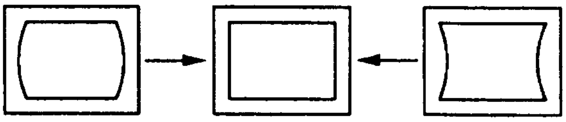
V LINEARITY



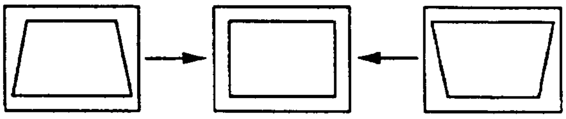
H SIZE



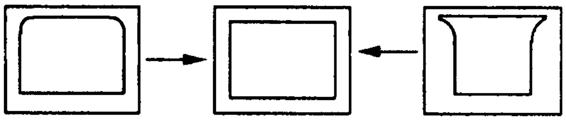
PIN AMP



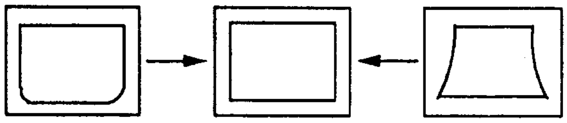
TILT



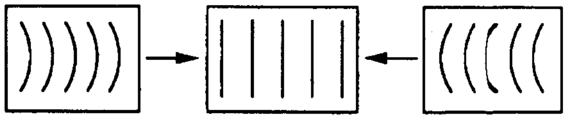
UPPER CORNER PIN



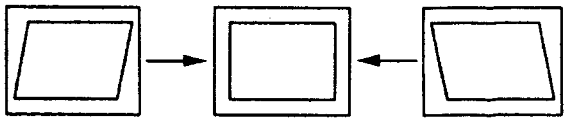
LOWER CORNER PIN



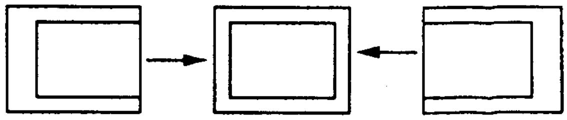
V BOW



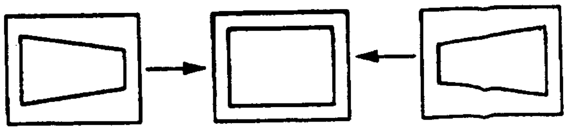
ANGLE



H SHIFT



N/S CORRECTION



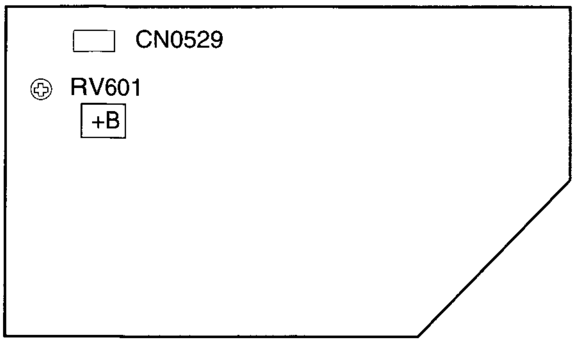
3. Press OK button to write the data.

If menu display may disturb the adjustment press 🔇 to clear, to resume it, press 🔇 again.

4-2. VOLUME ELECTRICAL ADJUSTMENTS

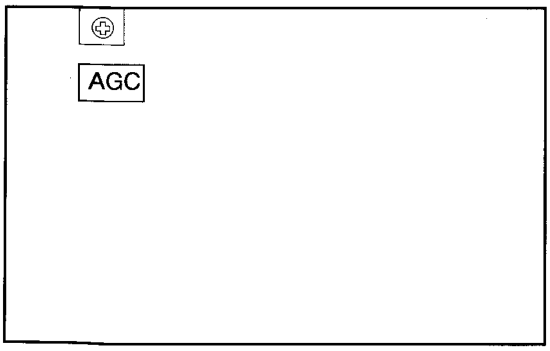
+B (+135V) ADJUSTMENT (RV601)

D BOARD



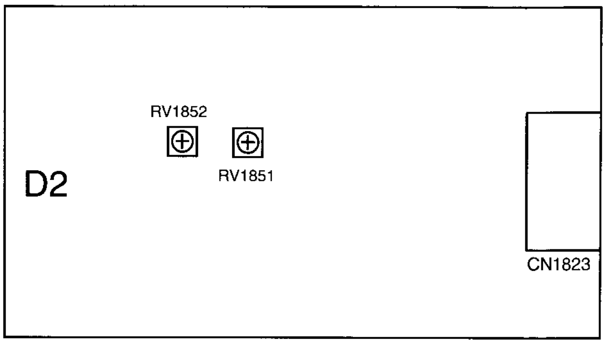
1. Switch on the power to the TV set.
2. Connect a digital multi-meter to pin ① of CN0529 on D board.
3. Adjust RV601 on D board to +135V ± 0.5V.

AGC ADJUSTMENT (IF BLOCK)

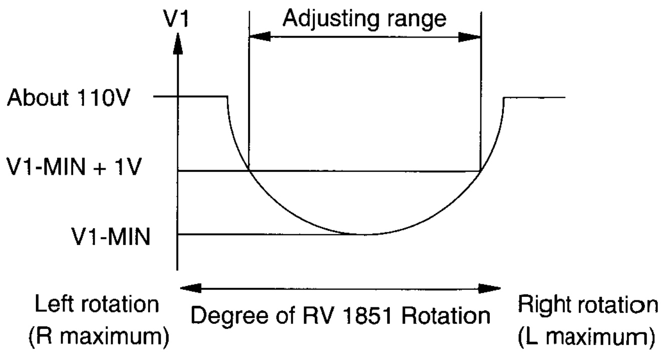


1. Receive an off-air signal.
2. Adjust the AGC VR so that there is no snow noise or cross-modulation visible on the screen.
3. Change the receiving channel and confirm status.

DRIVE PULSE PHASE ADJUSTMENT (RV 1851)



1. While measuring the voltage V1 at both edges of C1859, rotate RV 1851 so that it becomes minimum.
   The adjusting range is from (the voltage at which V1 becomes minimum) V1 MIN to 3V,which means, adjust to between V1 MIN to V1 MIN + 1V.



4-3. TEST MODE 2 :

Is available by pressing Test button two times, OSD “TT”appears. The functions described bellow are available by pressing the two numbors. To release the Test Mode 2, press two times 0, or switch TV in Standby Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Aging Condition (Volumin., Picture max., Brightness max., Aging 2 Mode of CXA 1587S, TDA 2595 is locked to CXA 1587S via PIN 34 of μ-Con.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	dummy
10	Tenth entry is deleted
11	Balance
12	Hue
13-14	dummy
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM
17	Preset Lavel for AV Sources
18	dummy
19	Stereo Seperation
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24-29	dummy

30	Tenth entry is deleted
31	Green Drive
32	Blue Drive
33	Green Cut Off (Auto Cut Off)
34	Blue Cut Off (Auto Cut Off)
35	Red Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
36	Green Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
37	Blue Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
38	Y-Filter adjustment (Trap is switched off and TDA 9145 is switched in forced NTSC Mode)
39	dummy
40	Tenth entry is deleted
41	Default setting of CXA 1587S (Only in Plog 99 available)
42	Default setting of CXA 2018 (Only in Plog 99 available)
43	Default setting of CXA 1526 (Only in Plog 99 available)
44	(all Port High) Not yet
45	(all Port High) Not yet
46-48	dummy
49	Erease the NVM Testbyte (this byte detects already stored NMV's) After selecting this function, switch TV Off and On → the NVM will be preset by μ-Controller. (Not the channel data)

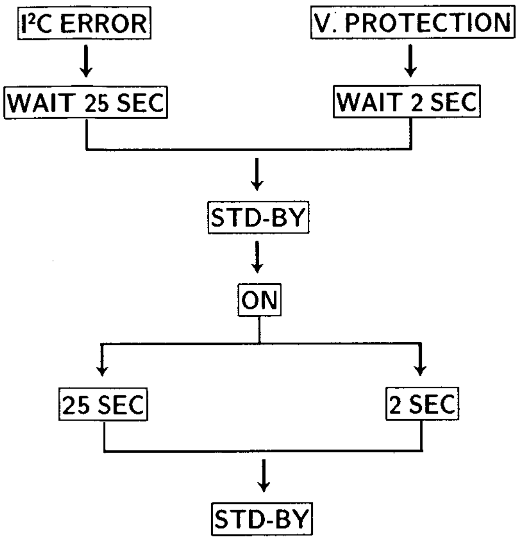
Note: For No. 35, 36, 37 and 38 special pressing (AKB, forced Color Mode, Trap) is selected. After selecting a new Test Mode Number, the AKB is switched ON, the Trap is switched On and TDA 9145 is switched to Auto Search Mode.

In Test Mode 2 the Menu display is switchable by Speaker-Off button.

4-4. ERROR MESSAGE

Self diagnos system can operates as follows.

- When MP can't get the acknowledge back from the device, LED starts flashing according to the table as attached.



In case of more errors in parallel, the blinking error shows max. Priority according to the error number (e.g. error 2 and error 5 appears together, then LEDs shows error 2) .

TABLE OF ERRORS

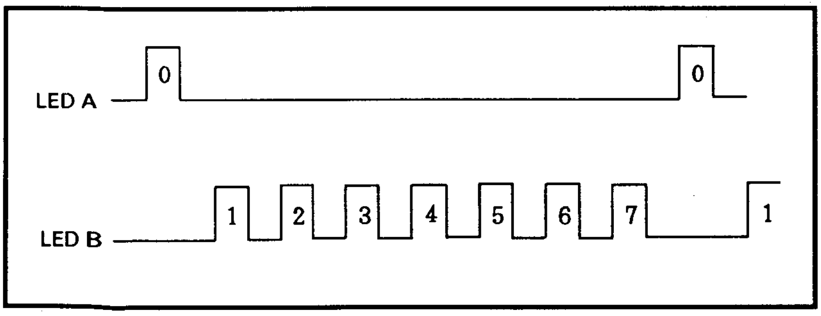
ERROR COUNT	IC TYPE	FUNCTION
1	II C BUS	SDA low
2	X 24 C 16	EEPROM
3	SDA 3202	Tuner Pll
4	TDA 9145	Colour decoder
5	CXA 1587S	RGB/Jungle
6	TDA 6612	Sound processor
7	CXD 2018	V deflection
8	CXA 1545	AV switch
11	SDA 5248	Text
13		V protection

Stand by LED blinking　No IK return

4-5. ERROR II C BUS DIAGNOSIS SYSTEM IN AE2 CHASSIS

For all ICs in AE 2 chassis which are necessary to get picture and sound there is a built in error I²C Bus diagnosis system.

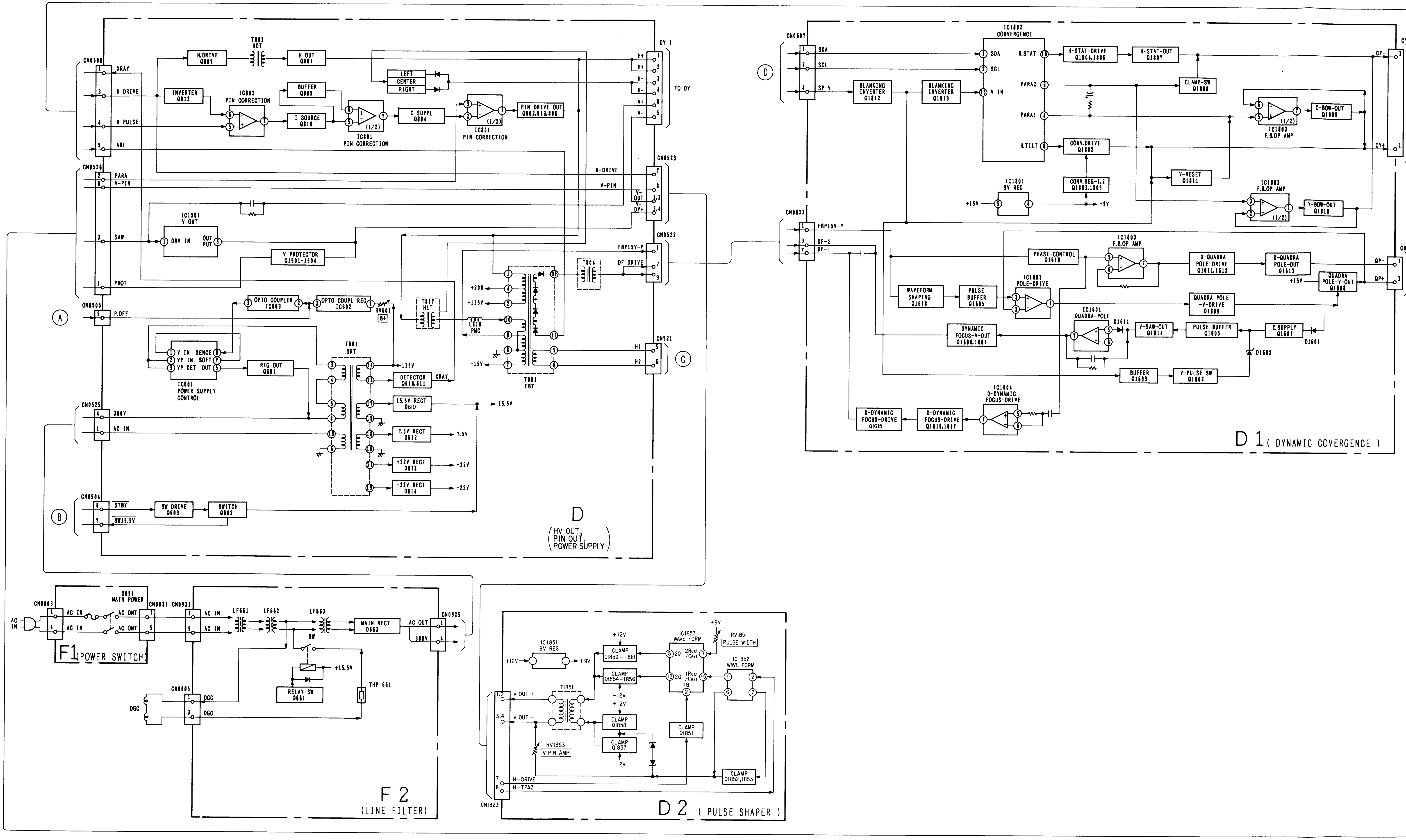
In case of no acknowledge bit, LED A and LED B starts blinking as shown.

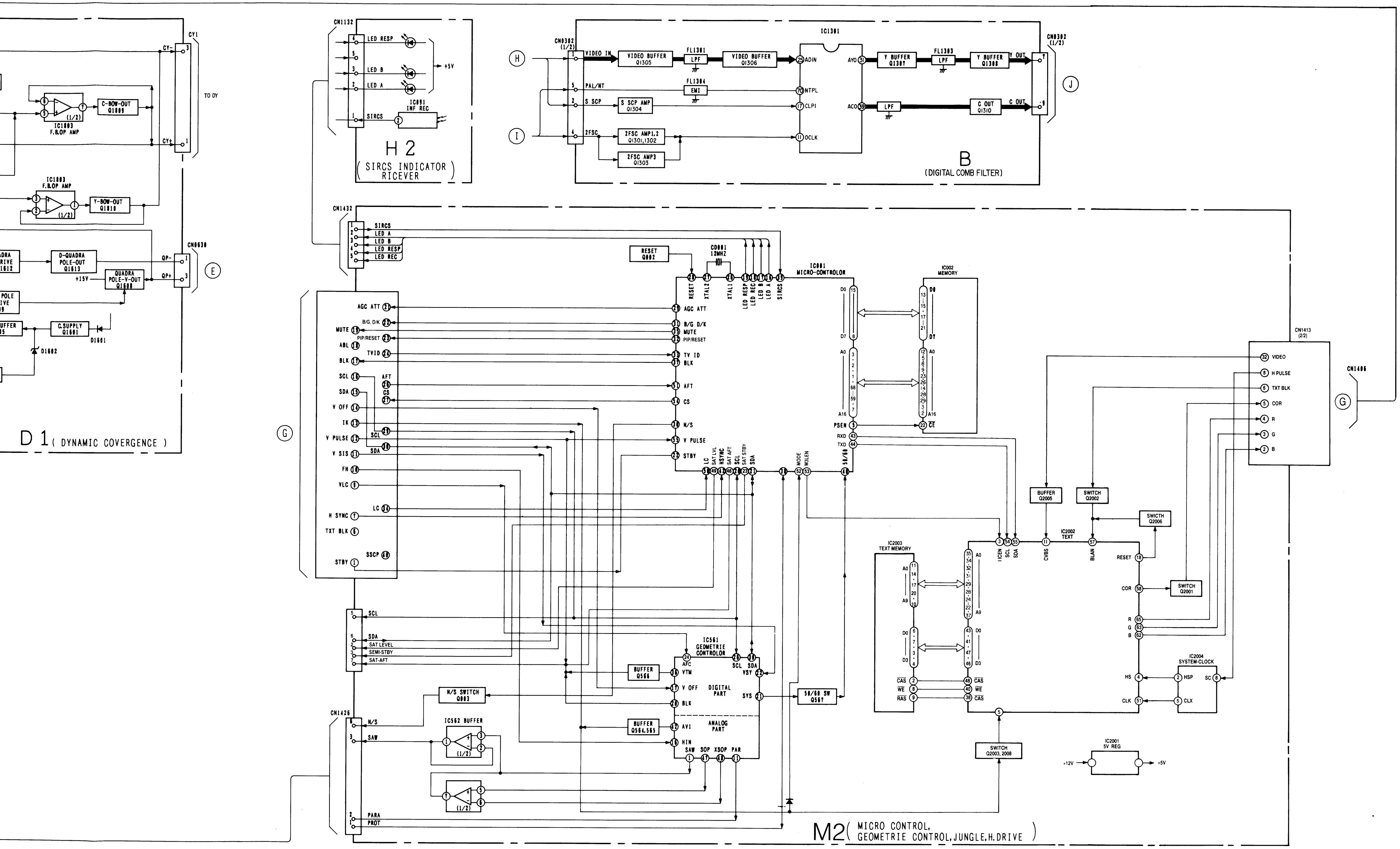


MEMO

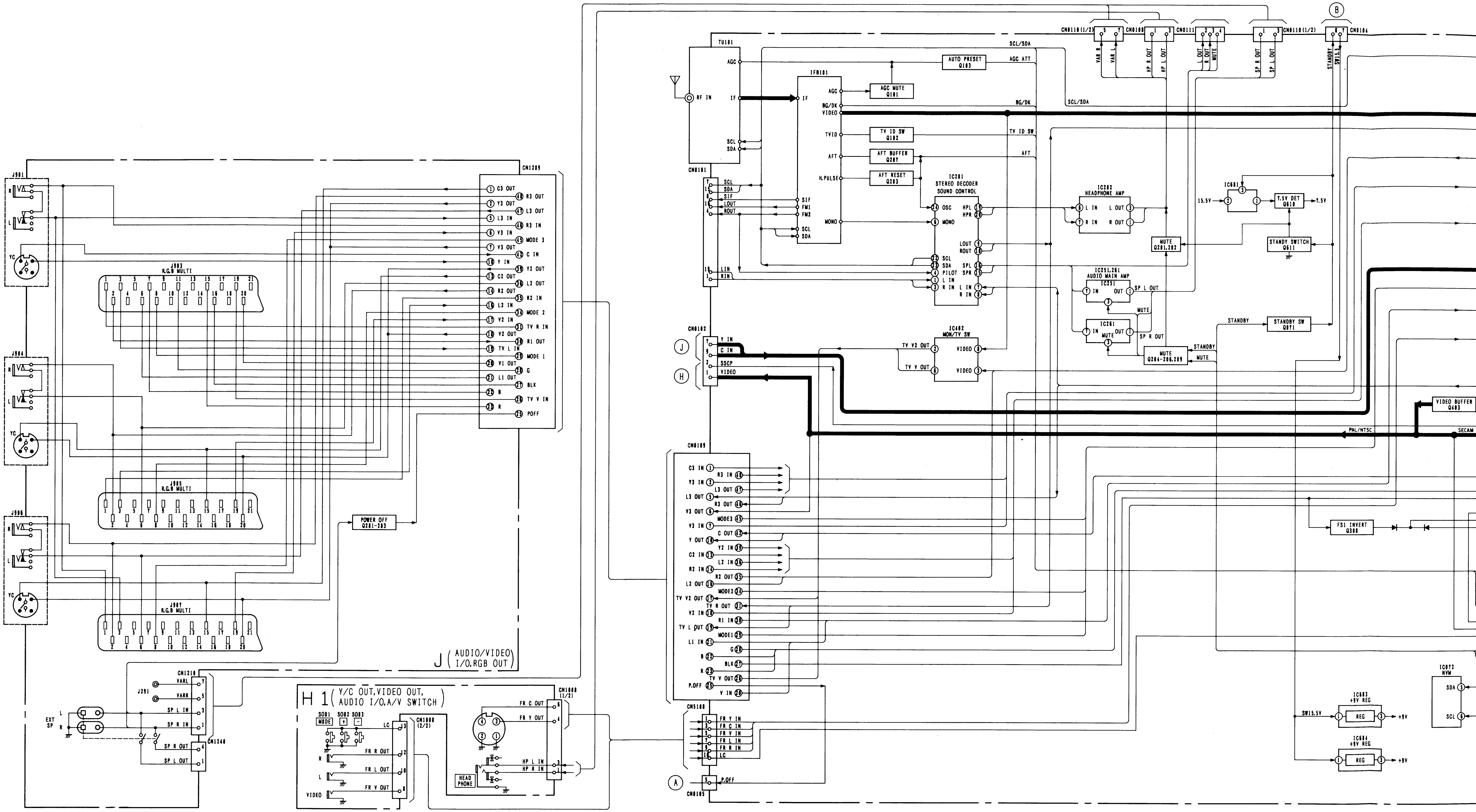
SECTION 5
DIAGRAMS

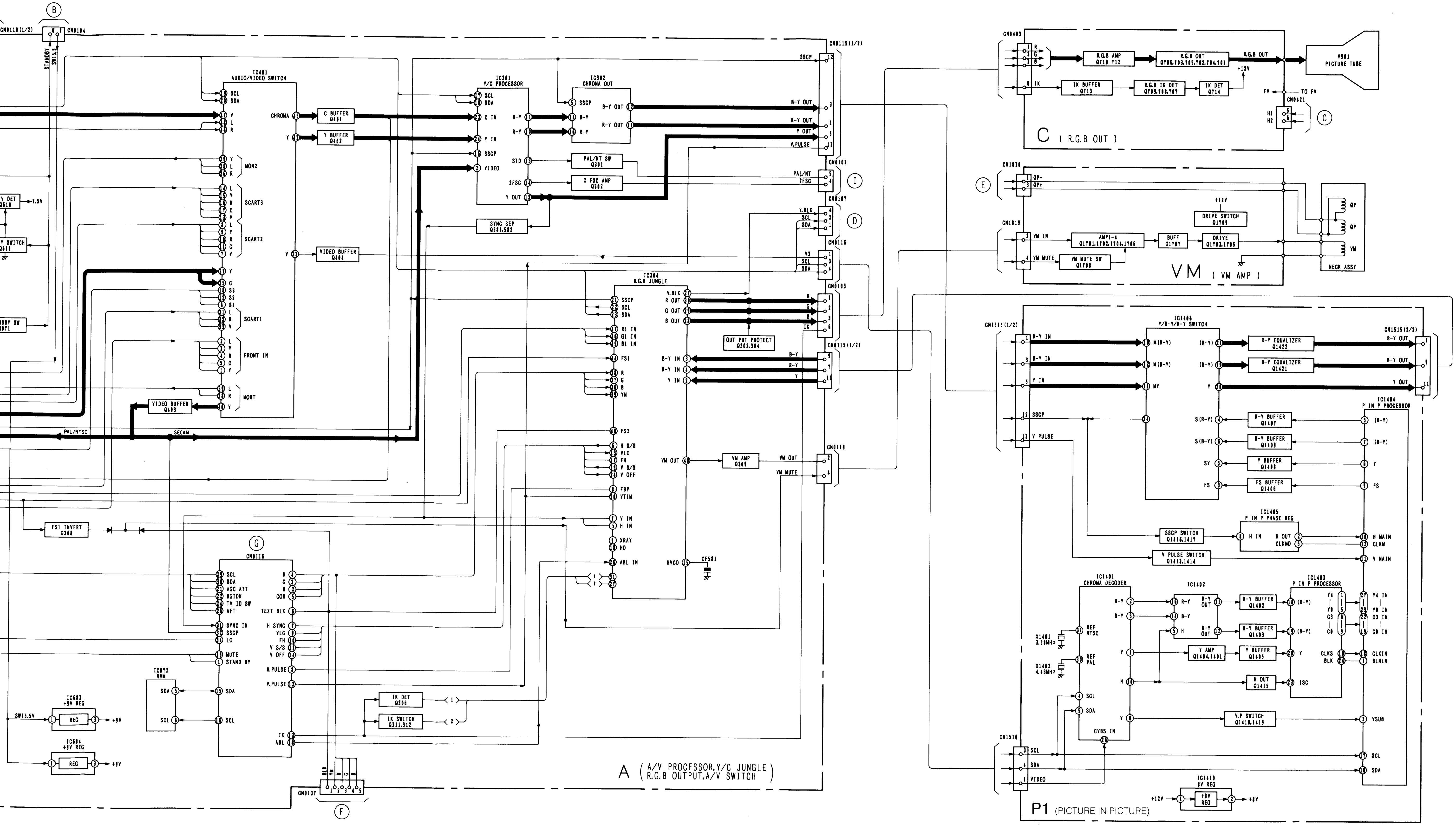
5-1. BLOCK DIAGRAM (1)


CN0506
XRAY
H DRIVE
H PULSE
ABL
H.DRIVE Q807
T803 HDT
H OUT Q801
INVERTER Q812
IC802 PIN CORRECTION
BUFFER Q805
I SOURCE Q810
LEFT
CENTER
RIGHT
C SUPPL Q804
IC801 PIN CORRECTION
PIN DRIVE OUT Q802,813,806
(1/2)
DY 1
H+
H+
H-
H-
V+
V-
TO DY
CN0526
PARA
V-PIN
SAW
PROT
CN0523
H-DRIVE
V-PIN
V-OUT
V-DY+
IC1501 V OUT
DRV IN
OUT PUT
V PROTECTOR Q1501-1504
CN0522
FBP15V-P
DF DRIVE
T804
+200
+135V
-15V
L810 PMC
T801 FBT
CN521
H1
H2
CN0505
P.OFF
OPTO COUPLER IC603
OPTO COUPL REG IC602
RV601
B+
T817 HLT
IC601 POWER SUPPLY CONTROL
V IN SENCE
VP IN SOFT
VP DET OUT
REG OUT Q601
T601 SRT
135V
DETECTOR Q610,611
XRAY
15.5V RECT D610
15.5V
7.5V RECT D612
7.5V
+22V RECT D613
+22V
-22V RECT D614
-22V
CN0525
300V
AC IN
CN0504
STBY
SW15.5V
SW DRIVE Q603
SWITCH Q602
D
(HV OUT, PIN OUT, POWER SUPPLY.)
A
B
C
D
CN0607
SDA
SCL
SP V
BLANKING INVERTER Q1812
BLANKING INVERTER Q1813
IC1802 CONVERGENCE
SDA
SCL
V IN
H.STAT
PARA2
PARA1
H.TILT
H-STAT-DRIVE Q1804,1806
H-STAT-OUT Q1807
CLAMP-SW Q1808
IC1803 F.BOP AMP
C-BOW-OUT Q1809
CY-
CY+
CONV.DRIVE Q1802
IC1801 9V REG
+15V
+9V
CONV.REG-1,2 Q1803,1805
V-RESET Q1811
IC1803 F.BOP AMP
Y-BOW-OUT Q1810
CN0622
FBP15V-P
DF-2
DF-1
PHASE-CONTROL Q1610
IC1603 F.BOP AMP
D-QUADRA POLE-DRIVE Q1611,1612
D-QUADRA POLE-OUT Q1613
QUADRA POLE-V-OUT Q1608
QP-
QP+
WAVEFORM SHAPING Q1610
PULSE BUFFER Q1605
IC1603 POLE-DRIVE
QUADRA POLE -V-DRIVE Q1609
IC1601 QUADRA-POLE
D1611
V-SAW-OUT Q1614
PULSE BUFFER Q1605
C.SUPPLY Q1601
D1601
D1602
DYNAMIC FOCUS-V-OUT Q1606,1607
BUFFER Q1603
V-PULSE SW Q1602
IC1604 D-DYNAMIC FOCUS-DRIVE
D-DYNAMIC FOCUS-DRIVE Q1615
D-DYNAMIC FOCUS-DRIVE Q1616,1617
D 1 (DYNAMIC COVERGENCE)
CN0003
AC IN
S651 MAIN POWER
AC ONT
F1 (POWER SWITCH)
CN0031
CN0931
LF661
LF662
LF663
MAIN RECT D663
AC OUT
300V
CN0925
SW
+15.5V
RELAY SW Q661
THP 661
CN0005
DGC
F 2 (LINE FILTER)
IC1851 9V REG
+12V
+9V
CLAMP Q1859-1861
CLAMP Q1854-1856
-12V
CLAMP Q1858
CLAMP Q1857
T1851
V OUT +
V OUT -
RV1853 V PIN AMP
IC1853 WAVE FORM
2Rext /Cext
1Rext /Cext
RV1851 PULSE WIDTH
IC1852 WAVE FORM
CLAMP Q1851
CLAMP Q1852,1853
H-DRIVE
H-TPAZ
CN1823
D 2 (PULSE SHAPER)

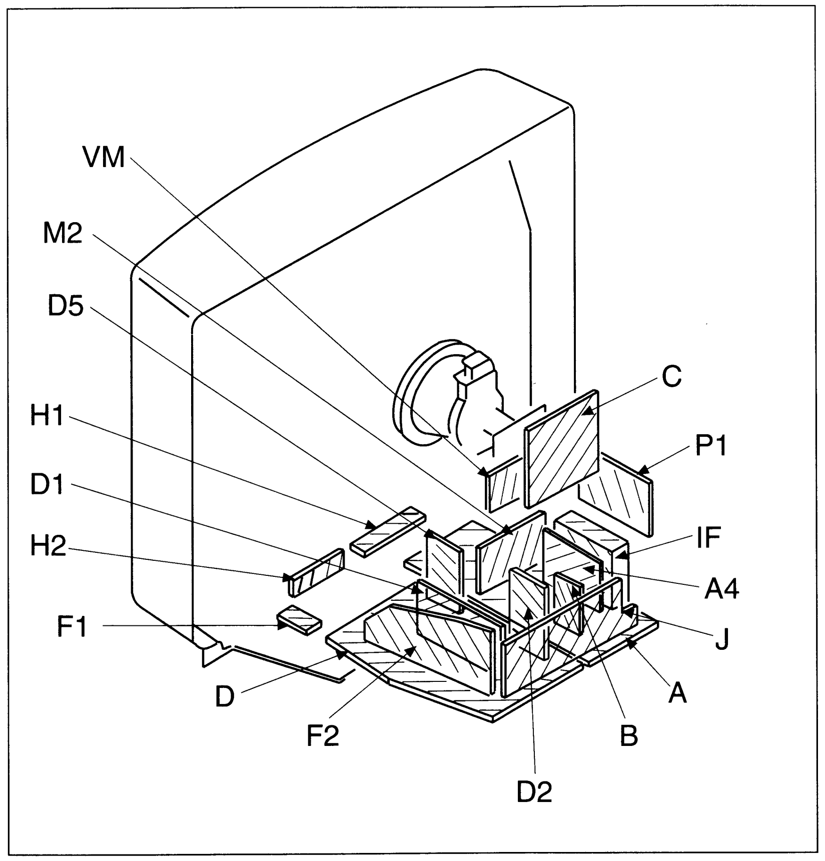

D 1 (DYNAMIC COVERGENCE)
CY1
TO DY
CY-
CY+
C-BOW-OUT Q1009
IC1003 F.B.OP AMP
(1/2)
Y-BOW-OUT Q1010
D-QUADRA POLE-OUT Q1613
QUADRA POLE-V-OUT Q1608
+15V
QP-
QP+
CN0630
C.SUPPLY Q1601
D1601
D1602
H 2 (SIRCS INDICATOR RICEVER)
CN1132
LED RESP
LED B
LED A
SIRCS
+5V
IC091 INF REC
B (DIGITAL COMB FILTER)
CN0302 (1/2)
VIDEO IN
PAL/NT
S SCP
2FSC
VIDEO BUFFER Q1305
FL1301 LPF
VIDEO BUFFER Q1306
FL1304 EMI
S SCP AMP Q1304
2FSC AMP1,2 Q1301,1302
2FSC AMP3 Q1303
IC1301
ADIN
NTPL
CLPI
OCLK
AYO
ACO
Y BUFFER Q1307
FL1303 LPF
Y BUFFER Q1308
LPF
C OUT Q1310
Y OUT
C OUT
CN0302 (1/2)
H
I
J
E
G
CN1432
SIRCS
LED A
LED B
LED RESP
LED REC
RESET Q002
CD001 12MHZ
IC001 MICRO-CONTROLOR
RESET
XTAL2
XTAL1
LED RESP
LED REC
LED B
LED A
SIRCS
AGC ATT
B/G D/K
MUTE
PIP/RESET
TV ID
BLK
AFT
CS
N/S
V PULSE
STBY
LC
SAT LVL
HSYNC
SAT AFT
SCL
SAT STBY
SDA
MODE
M3LEN
50/60
PSEN
RXD
TXD
D0
D7
A0
A16
IC002 MEMORY
CE
ABL
TVID
SCL
SDA
V OFF
IK
V SIS
FH
VLC
H SYNC
TXT BLK
SSCP
IC561 GEOMETRIE CONTROLOR
AFC
VTM
V OFF
BLK
AVI
HIN
VSY
SYS
DIGITAL PART
ANALOG PART
SAW
SOP
XSOP
PAR
BUFFER Q566
BUFFER Q564,565
N/S SWITCH Q003
50/60 SW Q567
IC562 BUFFER
CN1426
N/S
SAW
PARA
PROT
SAT LEVEL
SEMI-STBY
SAT-AFT
M2 (MICRO CONTROL, GEOMETRIE CONTROL,JUNGLE,H.DRIVE)
CN1413 (2/2)
VIDEO
H PULSE
TXT BLK
COR
R
G
B
CN1406
BUFFER Q2005
SWITCH Q2002
SWICTH Q2006
IC2002 TEXT
ICEN
CVBS
BLAN
RESET
SWITCH Q2001
IC2003 TEXT MEMORY
A0
A9
D0
D3
CAS
WE
RAS
HS
CLK
IC2004 SYSTEM-CLOCK
HSP
SC
CLX
SWITCH Q2003, 2008
IC2001 5V REG
+12V
+5V

BLOCK DIAGRAM (2)


J901
J904
J906
YC
J903 R.G.B MULTI
J905 R.G.B MULTI
J907 R.G.B MULTI
CN1209
POWER OFF Q201-203
J (AUDIO/VIDEO I/O,RGB OUT)
CN1210
J201
VARL
VARR
SP L IN
SP R IN
SP R OUT
SP L OUT
CN1240
EXT SP
H 1 (Y/C OUT,VIDEO OUT, AUDIO I/O,A/V SWITCH)
S081 MODE
S082 +
S083 -
CN1008 (2/2)
CN1008 (1/2)
FR C OUT
FR Y OUT
FR R OUT
FR L OUT
FR V OUT
HP L IN
HP R IN
HEAD PHONE
VIDEO
TU101
RF IN
AGC
IF
SCL
SDA
IFB101
BG/DK
VIDEO
TVID
AFT
H.PULSE
MONO
AUTO PRESET Q103
AGC ATT
AGC MUTE Q101
TV ID SW Q102
AFT BUFFER Q207
AFT RESET Q203
IC201 STEREO DECODER SOUND CONTROL
IC202 HEADPHONE AMP
IC251,261 AUDIO MAIN AMP
MUTE Q201,202
MUTE Q204-206,209
IC402 MON/TV SW
TV V2 OUT
TV V OUT
CN0101
CN0102
CN0109
CN5108
CN0105
P.OFF
IC601
15.5V
T.5V DET Q610
STANDY SWITCH Q611
STANDBY SW Q871
STANDBY
MUTE
VIDEO BUFFER Q403
PAL/NTSC
SECAM
FS1 INVERT Q308
IC603 +9V REG
IC604 +9V REG
SW15.5V
+9V
IC072 NVM
CN0110 (1/2)
CN0108
CN0111
CN0104
VAR R
VAR L
HP R OUT
HP L OUT
L OUT
R OUT
MUTE
SP R OUT
SP L OUT
STANDBY
SW15.5


B
CN0110 (1/2)
CN0104
STANDBY
SW15.5V
IC401
AUDIO/VIDEO SWITCH
SCL
SDA
CHROMA
C BUFFER Q401
Y BUFFER Q402
MON2
SCART3
SCART2
SCART1
FRONT IN
MONT
VIDEO BUFFER Q404
VIDEO BUFFER Q403
PAL/NTSC
SECAM
IC301
Y/C PROCESSOR
C IN
Y IN
SSCP
VIDEO
B-Y
R-Y
STD
2FSC
Y OUT
IC302
CHROMA OUT
B-Y OUT
R-Y OUT
PAL/NT SW Q301
2 FSC AMP Q302
SYNC SEP Q501,502
CN0115 (1/2)
CN0102
CN0107
CN0116
CN0103
CN0119
V.PULSE
PAL/NT
2FSC
V.BLK
V3
IC304
R.G.B JUNGLE
R OUT
G OUT
B OUT
R1 IN
G1 IN
B1 IN
FS1
FS2
H S/S
VLC
FH
V S/S
V OFF
FBP
VTIM
Y IN
H IN
XRAY
HD
ABL IN
HVCO
CF501
VM OUT
OUT PUT PROTECT Q303,304
B-Y IN
R-Y IN
VM AMP Q309
VM MUTE
I
D
FS1 INVERT Q300
G
CN0116
AGC ATT
BGIDK
TV ID SW
AFT
TEXT BLK
SYNC IN
H SYNC
LC
MUTE
STAND BY
H.PULSE
V.PULSE
IK
ABL
IC072 NVM
IC603 +9V REG
IC604 +9V REG
REG
SW15.5V
+9V
IK DET Q306
IK SWITCH Q311,312
CN0137
F
A (A/V PROCESSOR,Y/C JUNGLE R.G.B OUTPUT,A/V SWITCH)
CN0403
R.G.B AMP Q718-712
R.G.B OUT Q706,703,705,702,704,701
R.G.B OUT
+12V
V901 PICTURE TUBE
IK BUFFER Q713
R.G.B IK DET Q705,708,707
IK DET Q714
FV
TO FV
CN0421
H1
H2
C
C (R.G.B OUT)
CN1030
QP-
QP+
E
CN1019
VM IN
VM MUTE
AMP1-4 Q1701,1702,1704,1706
BUFF Q1707
DRIVE SWITCH Q1709
DRIVE Q1703,1705
VM MUTE SW Q1708
QP
VM
NECK ASSY
VM (VM AMP)
CN1515 (1/2)
CN1515 (2/2)
IC1406
Y/B-Y/R-Y SWITCH
R-Y EQUALIZER Q1422
B-Y EQUALIZER Q1421
R-Y OUT
B-Y OUT
Y OUT
IC1404
P IN P PROCESSOR
R-Y BUFFER Q1407
B-Y BUFFER Q1409
Y BUFFER Q1408
FS BUFFER Q1406
IC1405
P IN P PHASE REG
SSCP SWITCH Q1416,1417
V PULSE SWITCH Q1413,1414
H MAIN
CLKM
V MAIN
IC1401
CHROMA DECODER
IC1402
IC1403
P IN P PROCESSOR
REF NTSC
REF PAL
X1401 3.58MHz
X1402 4.43MHz
R-Y BUFFER Q1402
B-Y BUFFER Q1403
Y AMP Q1404,1401
Y BUFFER Q1405
H OUT Q1415
V.P SWITCH Q1418,1419
CVBS IN
Y4
Y0
C3
C0
CLKS
BLK
CLKIN
BLNLN
ISC
YSUB
CN1516
IC1410 8V REG
+8V REG
P1 (PICTURE IN PICTURE)

5-2. CIRCUIT BOARDS LOCATION


VM
M2
D5
H1
D1
H2
F1
D
F2
D2
B
A
J
A4
IF
P1
C

Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

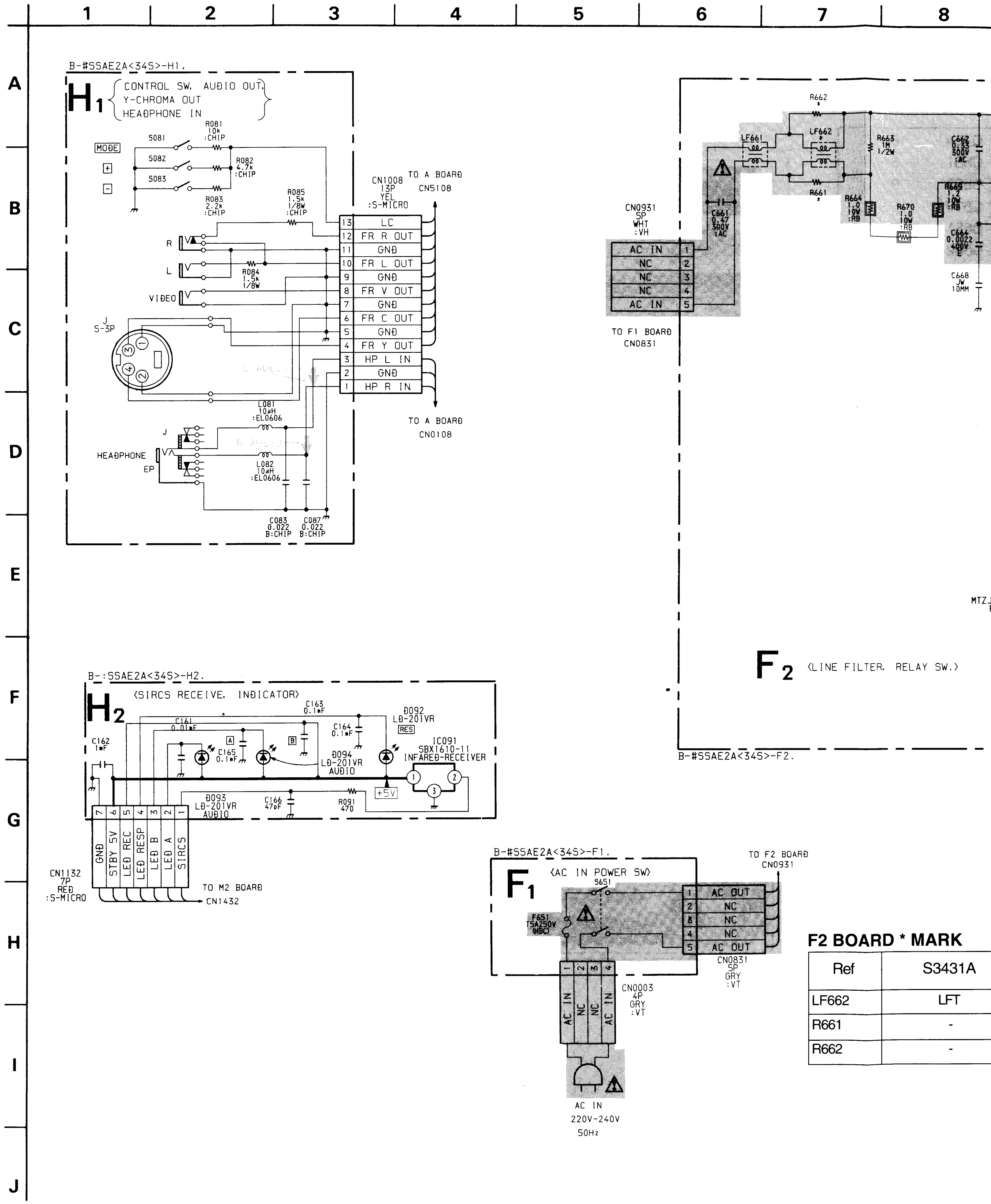
5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted.
  pF : μμF 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

Pitch : 5mm Rating electrical power : ¼W

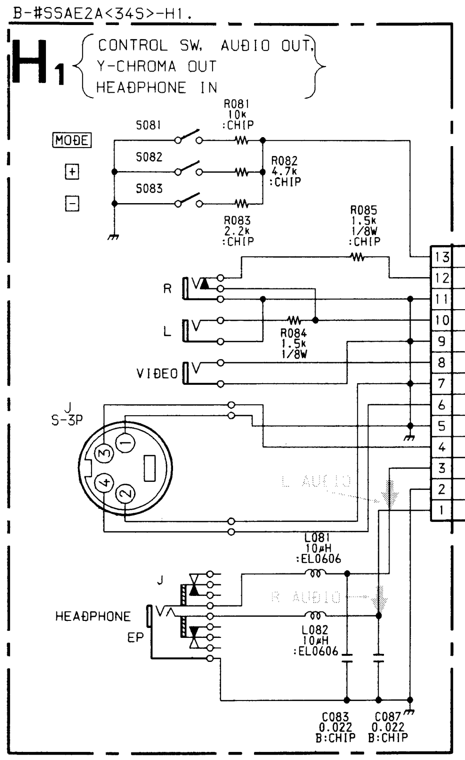
- Chip resistor is in 1/10W.
- All resistors are in ohms.
  kΩ = 1000 Ω, MΩ = 1000KΩ
- ▭ : nonflammable resistor.
- ▭∿ : fusible resistor.
- △ : internal component.
- ☐ : panel designation or adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ━━ : B+ bus.
- ━ ━ : B− bus.
- ▨ : signal path.(RF)
- ⊥ : earth - ground
- ⊥ : earth - chassis

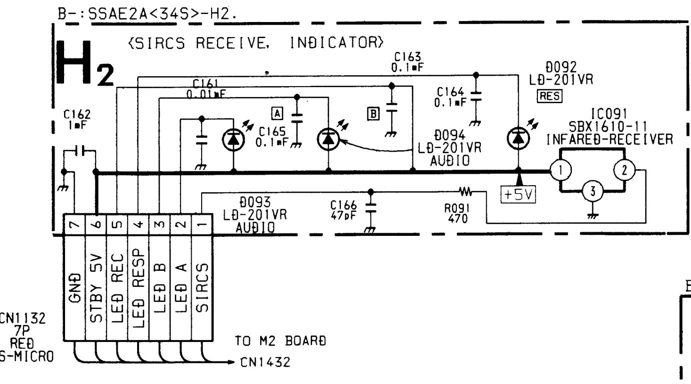

1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
B-#SSAE2A<34S>-H1.
H1
CONTROL SW. AUDIO OUT.
Y-CHROMA OUT
HEADPHONE IN
MODE
S081
S082
S083
R081 10k :CHIP
R082 4.7k :CHIP
R083 2.2k :CHIP
R084 1.5k 1/8W
R085 1.5k 1/8W :CHIP
R
L
VIDEO
J S-SP
HEADPHONE
EP
L081 10μH :EL0606
L082 10μH :EL0606
C083 0.022 B:CHIP
C087 0.022 B:CHIP
CN1008 13P YEL :S-MICRO
TO A BOARD CN5108
LC
FR R OUT
GND
FR L OUT
FR V OUT
FR C OUT
FR Y OUT
HP L IN
HP R IN
TO A BOARD CN0108
B-:SSAE2A<34S>-H2.
H2
SIRCS RECEIVE, INDICATOR
C161 0.01μF
C162 1μF
C163 0.1μF
C164 0.1μF
C165 0.1μF
C166 47pF
D092 LD-201VR
RES
D093 LD-201VR AUDIO
D094 LD-201VR AUDIO
IC091 SBX1610-11 INFARED-RECEIVER
R091 470
+5V
CN1132 7P RED :S-MICRO
GND
STBY 5V
LED REC
LED RESP
LED B
LED A
SIRCS
TO M2 BOARD CN1432
CN0931 5P WHT :VH
AC IN
NC
TO F1 BOARD CN0831
R662
LF661
LF662
R663 1M 1/2W
C662 0.33 300V :AC
C661 0.47 300V :AC
R661
R664 1.0 10W :RB
R670 1.0 10W :RB
C664 0.0022 400V
C668 3W 10MM
MTZ
F2
LINE FILTER, RELAY SW.
B-#SSAE2A<34S>-F2.
B-#SSAE2A<34S>-F1.
F1
AC IN POWER SW
S651
F651 T5A250V
TO F2 BOARD CN0931
AC OUT
CN0831 5P GRY :VT
CN0003 4P GRY :VT
AC IN
220V-240V
50Hz

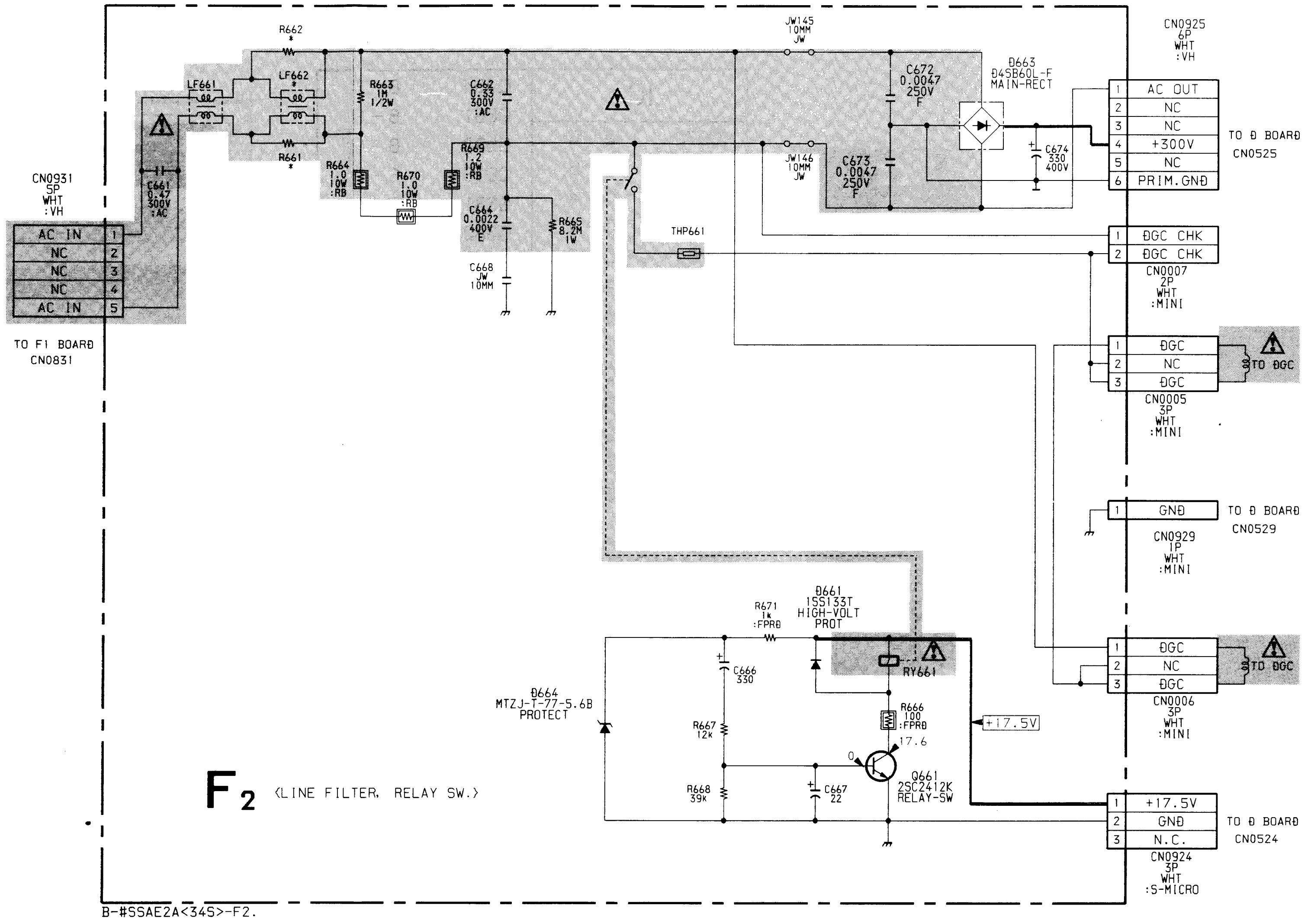
F2 BOARD * MARK

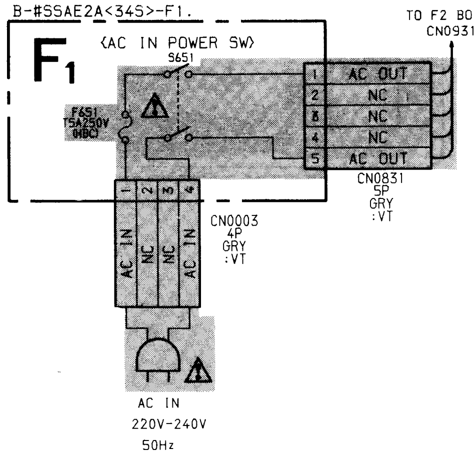
Ref	S3431A
LF662	LFT
R661	-
R662	-

H1 CONTROL SW, AUDIO OUT Y – CHROMA OUT, HEADPHONE IN


B-#SSAE2A<34S>-H1.
H1 CONTROL SW. AUDIO OUT Y-CHROMA OUT HEADPHONE IN
MODE
S081
S082
S083
R081 10k :CHIP
R082 4.7k :CHIP
R083 2.2k :CHIP
R084 1.5k 1/8W
R085 1.5k 1/8W :CHIP
R
L
VIDEO
J S-3P
J
HEADPHONE
EP
L081 10μH :EL0606
L082 10μH :EL0606
C083 0.022 B:CHIP
C087 0.022 B:CHIP
CN1008 13P YEL :S-MICRO
TO A BOARD CN5108
TO A BOARD CN0108
13 LC
12 FR R OUT
11 GND
10 FR L OUT
9 GND
8 FR V OUT
7 GND
6 FR C OUT
5 GND
4 FR Y OUT
3 HP L IN
2 GND
1 HP R IN
L AUDIO
R AUDIO


B-:SSAE2A<34S>-H2.
H2 (SIRCS RECEIVE, INDICATOR)
C161 0.01μF
C162 1μF
C163 0.1μF
C164 0.1μF
C165 0.1μF
C166 47pF
D092 LB-201VR RES
D093 LB-201VR AUDIO
D094 LB-201VR AUDIO
IC091 SBX1610-11 INFARED-RECEIVER
R091 470
+5V
7 GND
6 STBY 5V
5 LED REC
4 LED RESP
3 LED B
2 LED A
1 SIRCS
CN1132 7P RED S-MICRO
TO M2 BOARD CN1432

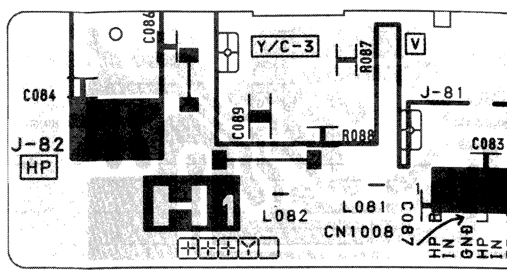

CN0931 5P WHT :VH
1 AC IN
2 NC
3 NC
4 NC
5 AC IN
TO F1 BOARD CN0831
C661 0.47 300V :AC
LF661
LF662
R662
R661
R663 1M 1/2W
R664 1.0 10W :RB
R670 1.0 10W :RB
R669 1.2 10W :RB
C662 0.33 300V :AC
C664 0.0022 400V E
R665 8.2M 1W
C668 JW 10MM
JW145 10MM JW
JW146 10MM JW
C672 0.0047 250V F
C673 0.0047 250V F
D663 D4SB60L-F MAIN-RECT
C674 330 400V
THP661
CN0925 6P WHT :VH
1 AC OUT
2 NC
3 NC
4 +300V
5 NC
6 PRIM.GND
TO D BOARD CN0525
1 DGC CHK
2 DGC CHK
CN0007 2P WHT :MINI
1 DGC
2 NC
3 DGC
CN0005 3P WHT :MINI
TO DGC
1 GND
CN0929 1P WHT :MINI
TO D BOARD CN0529
1 DGC
2 NC
3 DGC
CN0006 3P WHT :MINI
TO DGC
D661 1SS133T HIGH-VOLT PROT
R671 1k :FPRD
C666 330
RY661
D664 MTZJ-T-77-5.6B PROTECT
R667 12k
R668 39k
C667 22
R666 100 :FPRD
17.6
0
Q661 2SC2412K RELAY-SW
+17.5V
1 +17.5V
2 GND
3 N.C.
CN0924 3P WHT :S-MICRO
TO D BOARD CN0524
F2 (LINE FILTER, RELAY SW.)
B-#SSAE2A<34S>-F2.


B-#SSAE2A<34S>-F1.
F1 (AC IN POWER SW)
S651
F651 T5A250V (BC)
1 AC OUT
2 NC
3 NC
4 NC
5 AC OUT
CN0831 5P GRY :VT
TO F2 BOARD CN0931
AC IN
NC
NC
AC IN
CN0003 4P GRY :VT
AC IN 220V-240V 50Hz

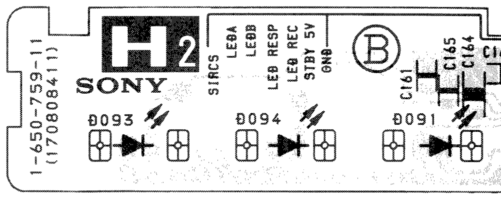
F2 BOARD * MARK

Ref	S3431A	S3431B	S3431D	S3433E	S3431K	S3432U
LF662	LFT	-	LFT	-	-	-
R661	-	JW 10MM	-	JW 10MM	JW 10MM	JW 10MM
R662	-	JW 10MM	-	JW 10MM	JW 10MM	JW 10MM

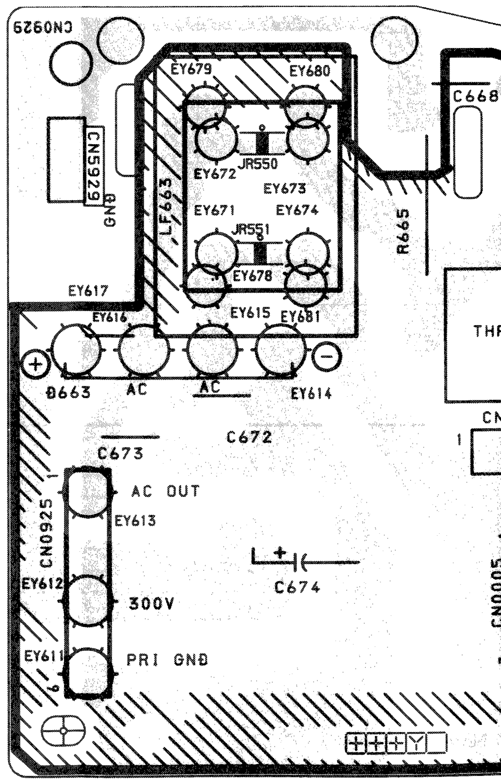
– H1 BOARD –

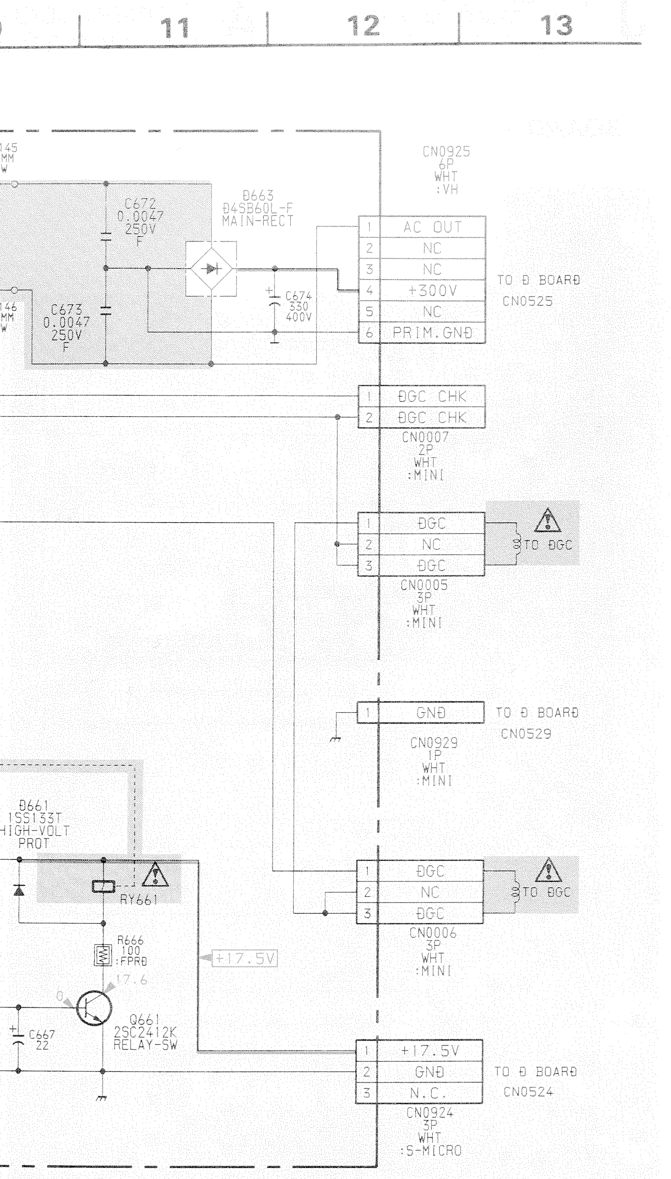

C084
C086
Y/C-3
R087
V
J-81
C083
J-82
HP
C089
R088
H1
L082
L081
CN1008
C087
HP IN
GND
HP

– H2 BOARD –


1-650-759-11 (1708084 11)
H2
SONY
SIRCS
LEDA
LEDB
LED RESP
LED REC
STBY 5V
GND
B
C161
C165
C164
D093
D094
D091

– F2 BOARD –


CN0929
EY679
EY680
C668
CN5929
GND
LF663
EY672
JR550
EY673
EY671
EY674
JR551
EY678
R665
EY617
EY616
EY615
EY681
D663
AC
AC
EY614
C672
C673
AC OUT
EY613
CN0925
EY612
300V
C674
EY611
PRI GND
THF


11
12
13
C672
0.0047
250V
F
C673
0.0047
250V
F
D663
D4SB60L-F
MAIN-RECT
C674
330
400V
CN0925
6P
WHT
:VH
1 AC OUT
2 NC
3 NC
4 +300V
5 NC
6 PRIM.GND
TO D BOARD
CN0525
1 DGC CHK
2 DGC CHK
CN0007
2P
WHT
:MINI
1 DGC
2 NC
3 DGC
CN0005
3P
WHT
:MINI
TO DGC
1 GND
TO D BOARD
CN0529
CN0929
1P
WHT
:MINI
D661
1SS133T
HIGH-VOLT
PROT
RY661
R666
100
:FPRD
17.6
+17.5V
Q661
2SC2412K
RELAY-SW
C667
22
CN0006
3P
WHT
:MINI
1 +17.5V
2 GND
3 N.C.
CN0924
3P
WHT
:S-MICRO
TO D BOARD
CN0524

S3431D	S3433E	S3431K	S3432U
LFT	-	-	-
-	JW 10MM	JW 10MM	JW 10MM
-	JW 10MM	JW 10MM	JW 10MM

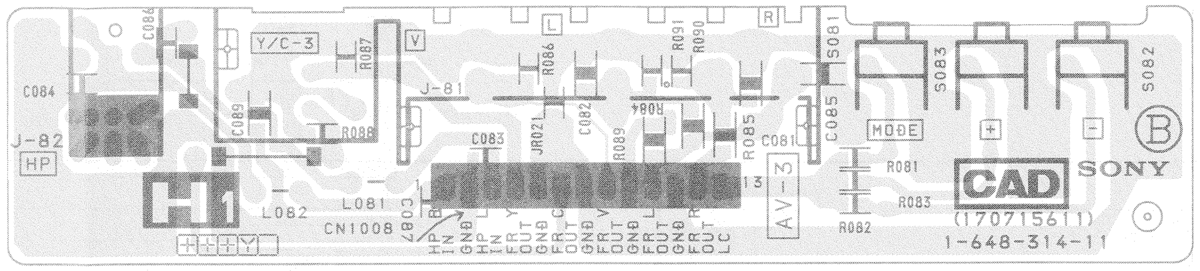
H1 CONTROL SW, AUDIO OUT
Y – CHROMA OUT, HEADPHONE IN

H2 SIRCS RECEIVER
INDICATOR

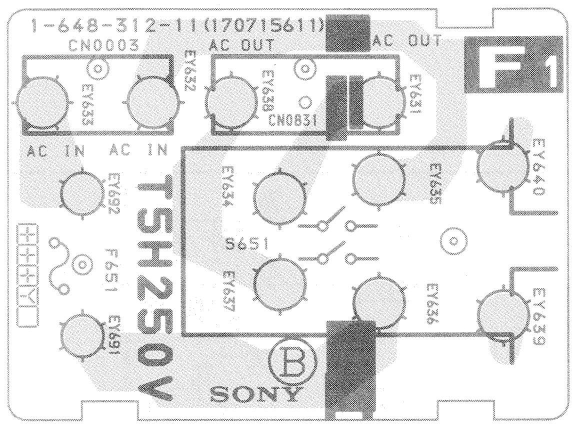
F1 AC IN POWER SW.

F2 LINE FILTER
RELAY SW.

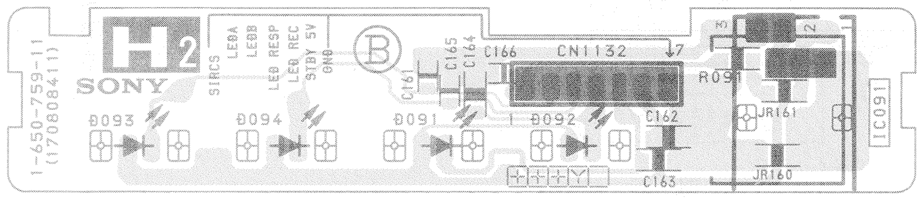
– H1 BOARD –


H1
C086
Y/C-3
R087
V
L
R086
R091
R090
R
S081
S083
S082
C084
J-81
JR02L
C082
R084
R085
C081
C085
J-82
HP
C089
R088
C083
MODE
+
−
R081
R083
R082
CAD
SONY
B
(170715611)
1-648-314-11
L082
L081
CN1008
C087
HP IN
GND
HP IN
FR Y
OUT C
GND
FR C
OUT V
GND
FR V
OUT L
GND
FR L
OUT R
GND
FR R
OUT LC
13
AV-3

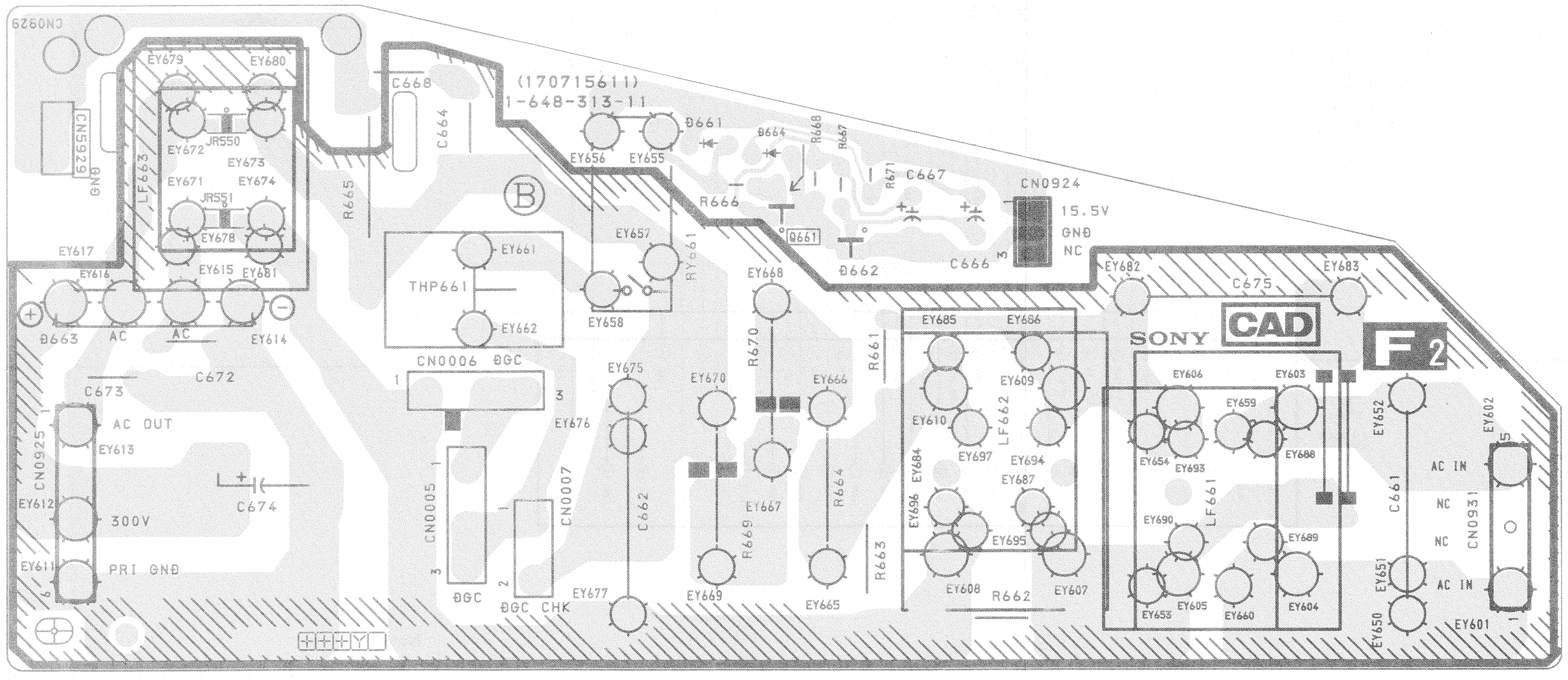
– F1 BOARD –


1-648-312-11(170715611)
CN0003
AC OUT
AC OUT
F1
EY632
EY633
EY638
CN0831
EY631
AC IN
AC IN
EY692
EY634
EY635
EY640
T5H250V
S651
F651
EY637
EY691
EY636
EY639
B
SONY

– H2 BOARD –

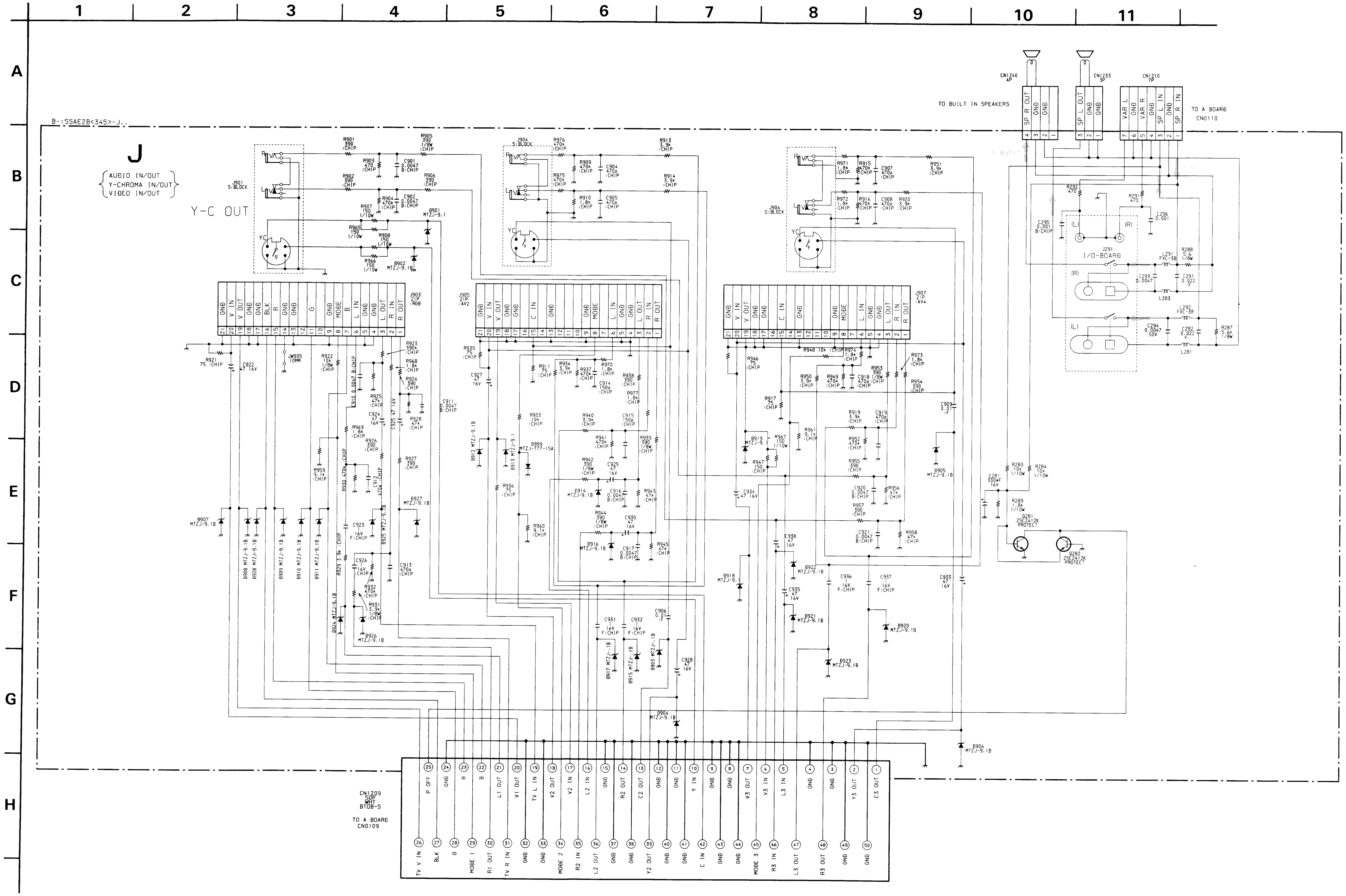

H2
SONY
1-650-759-11
(170808411)
SIRCS
LEDA
LEDB
LED RESP
LED REC
STBY 5V
GND
B
C161
C165
C164
C166
CN1132
7
R091
C162
JR161
IC091
JR160
C163
D093
D094
D091
D092
3
2

– F2 BOARD –


CN0929
CN5529
GND
LF663
EY679
EY680
EY672
JR550
EY673
EY671
EY674
JR551
EY678
EY617
EY616
EY615
EY681
D663
AC
AC
EY614
C668
C664
(170715611)
1-648-313-11
R665
B
D661
EY656
EY655
D664
R668
R667
C667
R666
Q661
CN0924
15.5V
GND
NC
D662
C666
EY661
THP661
EY662
EY657
RY661
EY658
EY668
EY682
C675
EY683
SONY
CAD
F2
C673
C672
AC OUT
EY613
CN0925
EY612
300V
C674
EY611
PRI GND
CN0006 DGC
1
3
EY676
CN0005
CN0007
DGC
DGC CHK
EY677
EY675
C662
EY670
R670
R669
EY669
EY667
EY666
R664
R661
R663
EY665
EY685
EY686
EY609
EY610
LF662
EY697
EY694
EY687
EY684
EY696
EY695
EY608
R662
EY607
EY606
EY603
EY659
EY654
EY693
EY688
EY690
LF661
EY689
EY653
EY605
EY660
EY604
EY652
C661
EY651
EY650
EY602
AC IN
NC
NC
AC IN
CN0931
EY601

J AUDIO IN/OUT
Y – CHROMA IN/OUT
VIDEO IN/OUT

A TUNER AUDIO C
AV SW, R.G.B. JU


1
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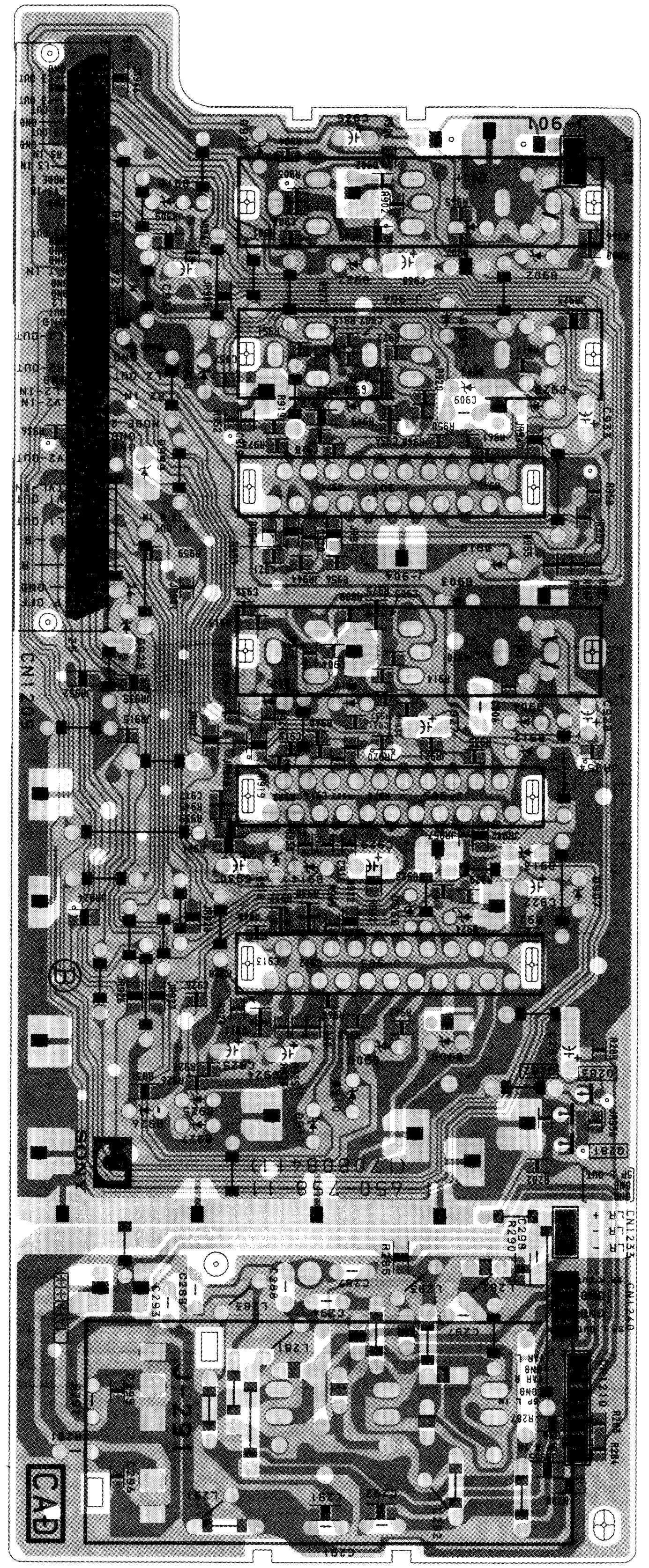
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
B-:SSAE2B<34S>-J..
J
AUDIO IN/OUT
Y-CHROMA IN/OUT
VIDEO IN/OUT
Y-C OUT
J901 S:BLOCK
J904 S:BLOCK
J906 S:BLOCK
J903 21P IRGB
J905 21P AV2
J907 21P AV4
TO BUILT IN SPEAKERS
CN1240 4P
CN1233 3P
CN1210 7P
TO A BOARD CN0110
SP R OUT
SP L OUT
VAR L
VAR R
SP L IN
SP R IN
GND
J291 I/O-BOARD
Q281 2SC2412K PROTECT
Q282 2SC2412K PROTECT
CN1209 50P WHT BTOB-S
TO A BOARD CN0109
P OFF
L1 OUT
V1 OUT
TV L IN
V2 OUT
V2 IN
L2 IN
R2 OUT
C2 OUT
Y IN
V3 OUT
V3 IN
L3 IN
Y3 OUT
C3 OUT
TV V IN
BLK
MODE 1
R1 OUT
TV R IN
MODE 2
R2 IN
L2 OUT
Y2 OUT
C IN
MODE 3
R3 IN
L3 OUT
R3 OUT

- J BOARD -



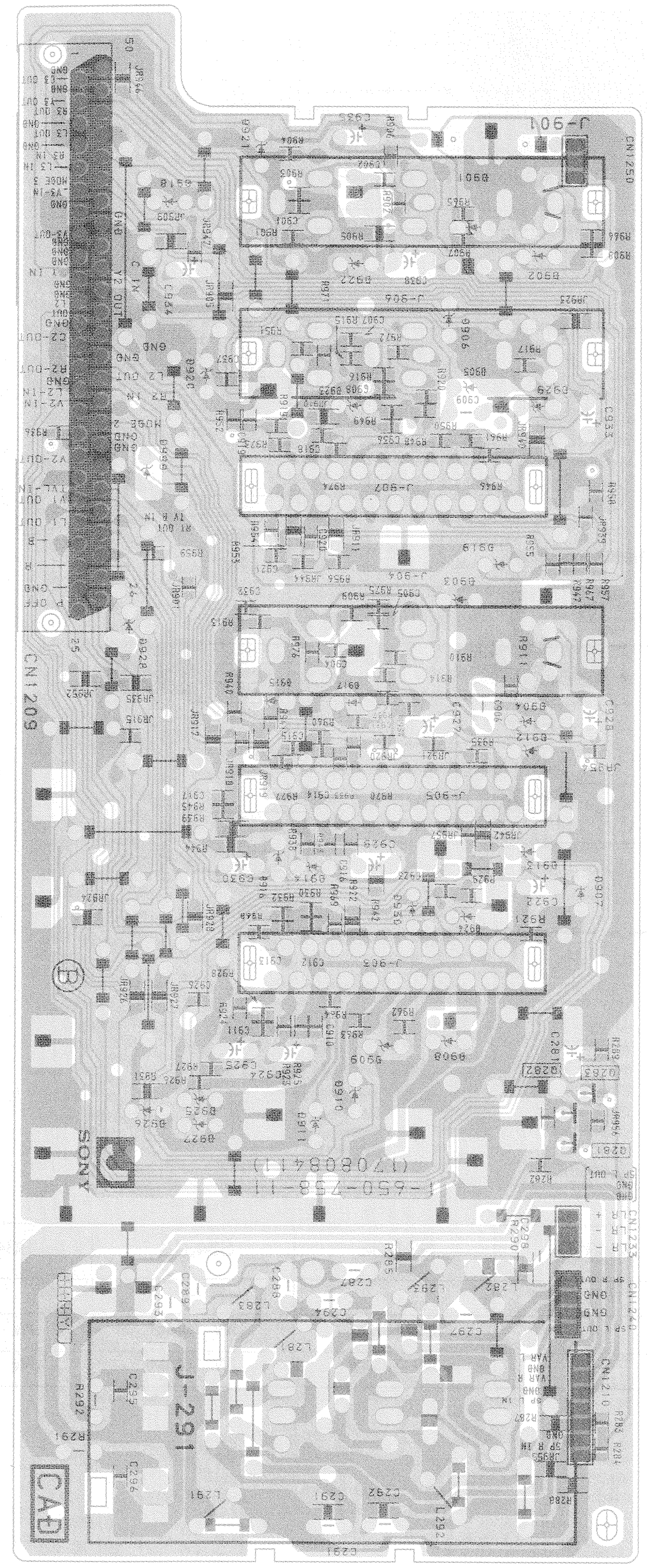
Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

J AUDIO IN/OUT
Y – CHROMA IN/OUT
VIDEO IN/OUT

A TUNER AUDIO CONTROL, AUDIO AMP
AV SW, R.G.B. JUNGLE, Y/C PROCESSOR

– J BOARD –


J-901
CN1250
CN1209
J-902
J-903
J-904
J-905
J-906
J-907
SONY
1-650-758-11 (17080841)
J-291
CN1210
CA-D

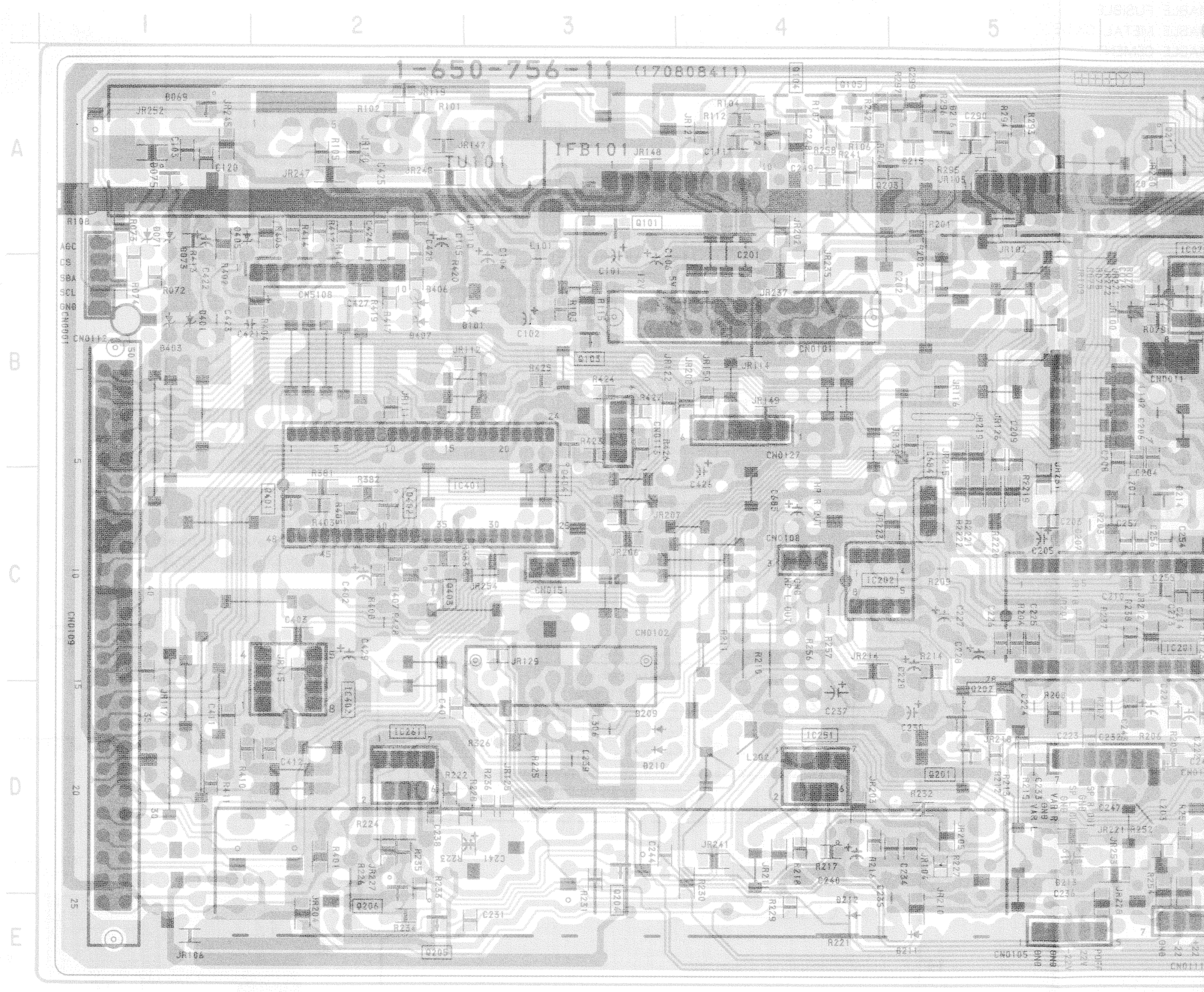
IC	
IC072	B – 6
IC201	C – 6
IC202	C – 4
IC251	D – 4
IC261	D – 2
IC301	A – 8
IC302	A – 10
IC304	C – 10
IC401	C – 2
IC402	D – 2
IC681	D – 9
IC684	C – 4
IC685	E – 8

TRANSISTOR	
Q071	D – 8
Q101	A – 3
Q102	A – 7
Q103	A – 3
Q201	D – 5
Q202	D – 5
Q203	A – 4
Q204	D – 3
Q205	E – 2
Q206	D – 2
Q207	B – 6
Q209	E – 7
Q210	A – 6
Q301	A – 7
Q302	B – 7
Q303	D – 10
Q304	D – 10
Q305	A – 8
Q306	D – 10
Q308	C – 9
Q309	C – 9
Q311	C – 8
Q312	C – 8
Q313	B – 8
Q314	C – 7
Q315	D – 7
Q401	C – 2
Q402	C – 2
Q403	C – 2
Q404	B – 3
Q581	B – 9
Q582	B – 9
Q610	E – 9
Q681	E – 7
Q682	D – 9

DIODE	
D068	B – 7
D069	A – 1
D071	A – 1
D073	A – 1
D075	A – 1
D077	B – 7
D078	B – 7
D079	B – 7
D101	B – 2
D206	D – 7
D207	E – 7
D208	D – 7
D209	D – 3
D210	D – 3
D211	E – 5
D212	E – 4
D213	D – 5
D214	C – 6
D301	B – 9
D302	A – 9
D304	B – 10
D305	C – 9
D306	D – 10
D307	D – 10
D308	D – 10
D311	C – 9
D312	C – 8
D313	C – 7
D381	C – 8
D401	B – 1
D403	B – 1
D405	A – 1
D406	B – 2
D407	B – 2
D571	B – 9
D681	E – 8
D683	D – 9

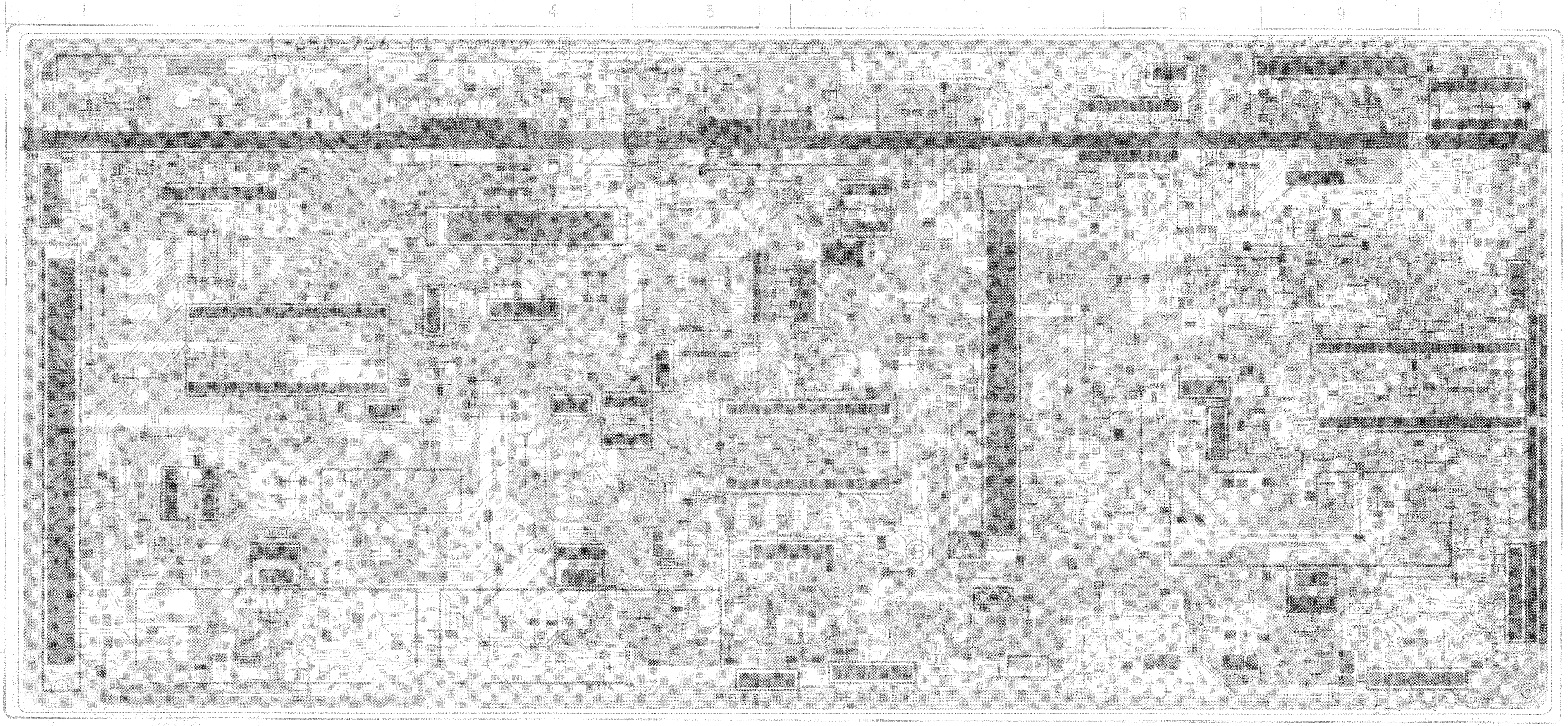
ables seeing.

– A BOARD –


1
2
3
4
5
A
B
C
D
E
1-650-756-11 (17080841)
TU101
IFB101
CN0101
CN0109
CN0112
CN0127
CN0108
CN0102
CN0105
IC401
IC402
IC202
IC251
IC261
IC201

Q404	B – 3
Q581	B – 9
Q582	B – 9
Q610	E – 9
Q681	E – 7
Q682	D – 9
DIODE	
D068	B – 7
D069	A – 1
D071	A – 1
D073	A – 1
D075	A – 1
D077	B – 7
D078	B – 7
D079	B – 7
D101	B – 2
D206	D – 7
D207	E – 7
D208	D – 7
D209	D – 3
D210	D – 3
D211	E – 5
D212	E – 4
D213	D – 5
D214	C – 6
D301	B – 9
D302	A – 9
D304	B – 10
D305	C – 9
D306	D – 10
D307	D – 10
D308	D – 10
D311	C – 9
D312	C – 8
D313	C – 7
D381	C – 8
D401	B – 1
D403	B – 1
D405	A – 1
D406	B – 2
D407	B – 2
D571	B – 9
D681	E – 8
D683	D – 9

– A BOARD –


1
2
3
4
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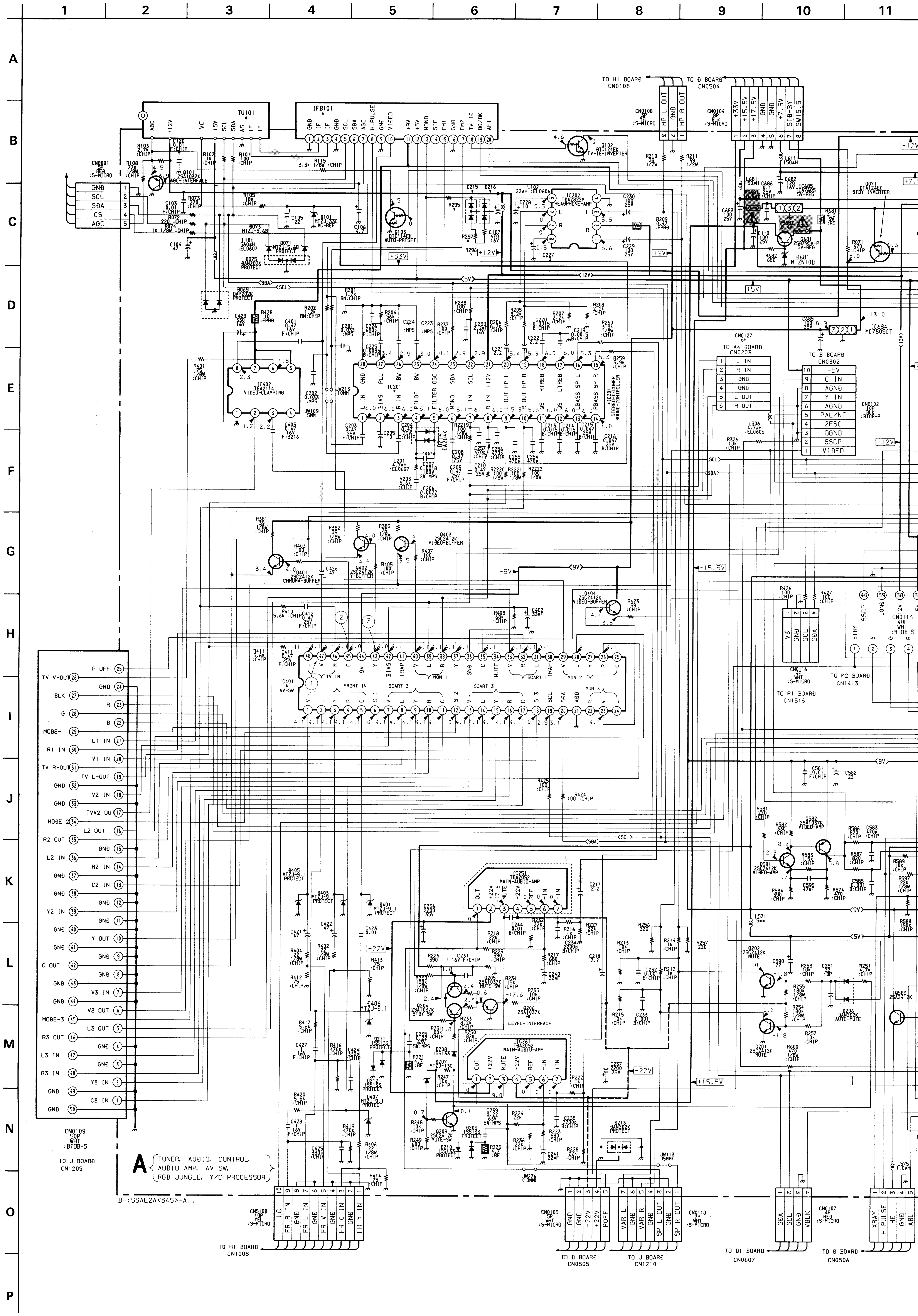
6
7
8
9
10
A
B
C
D
E
1-650-756-11 (170808411)
TU101
IFB101
SONY
CAD

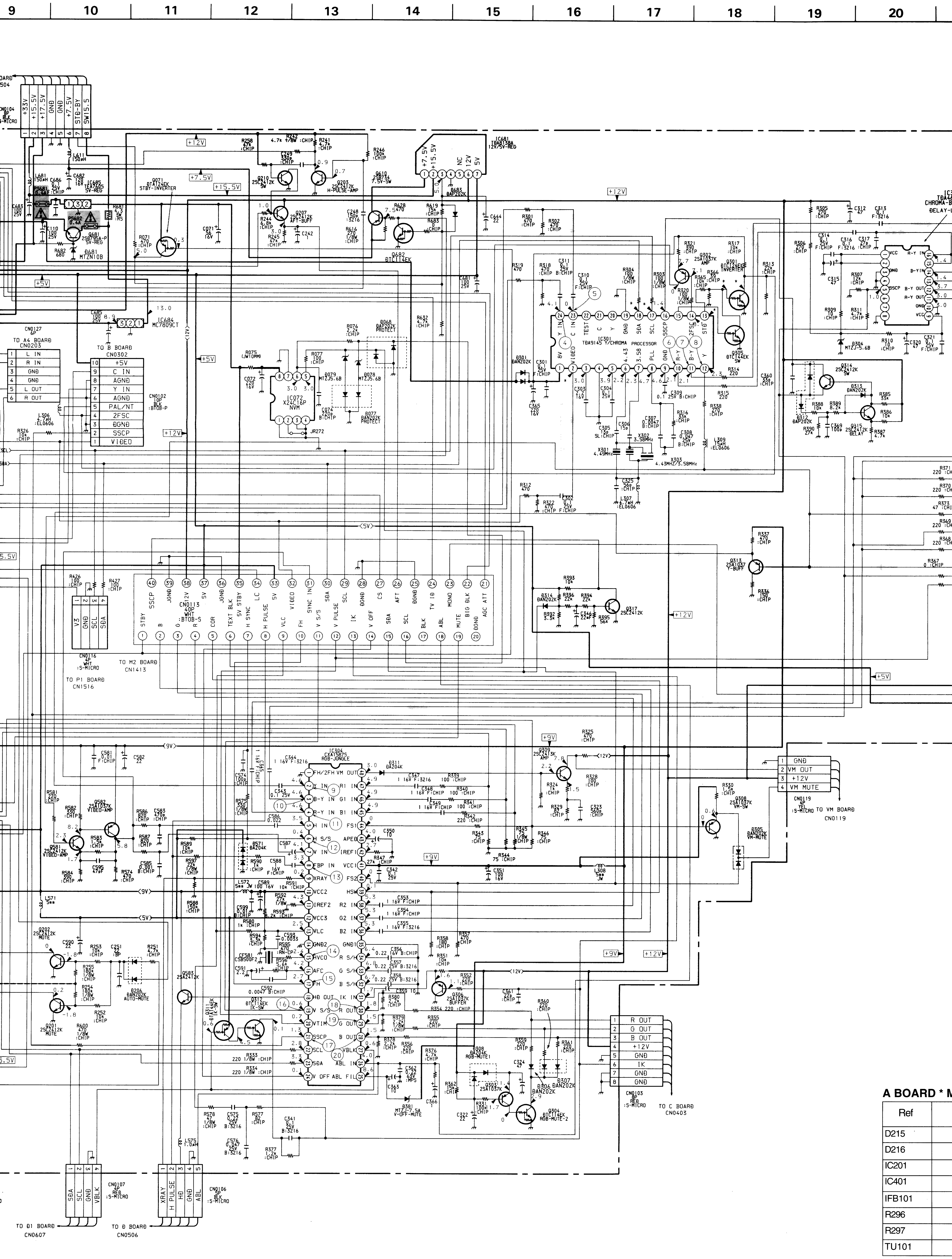
Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
TU101
IFB101
CN0001 5P RED :S-MICRO
GND
SCL
SDA
CS
AGC
Q101 2SA1037K AGC-INTERFACE
D101 MTZJ-33C VC-REF
Q103 DTC114EK AUTO-PRESET
Q102 DTC124EK TV-TB-INVERTER
IC202 TDA2822M HEADPHONE-AMP
TO H1 BOARD CN0108
TO D BOARD CN0504
CN0108 3P YEL :S-MICRO
HP L OUT
HP R OUT
CN0104 8P BLK :S-MICRO
+33V
+15.5V
+17.5V
+7.5V
STD-BY
SW15.5
IC685 TEA7605 5V-REG
Q681 2SB798A-P 5V-REG
D681 MTZN10B
Q071 DTA124EK STBY-INVERTER
IC684 MC7809CT
IC402 TEA2114 VIDEO-CLAMPING
IC201 STEREO-DECODER SOUND-CONTROLLER
TO A4 BOARD CN0203
CN0127 6P
L IN
R IN
L OUT
R OUT
TO B BOARD CN0302
+5V
C IN
AGND
Y IN
PAL/NT
2FSC
DGND
SSCP
VIDEO
CN0102 10P BLK :BTOB-P
Q401 2SC2412K CHROMA-BUFFER
Q402 2SC2412K Y-BUFFER
Q403 2SC2412K VIDEO-BUFFER
Q404 2SC2412K VIDEO-BUFFER
IC401 AV-SW
TV IN
FRONT IN
SCART 2
SCART 3
MON 1
SCART 1
MON 2
MON 3
CN0116 4P WHT :S-MICRO
TO P1 BOARD CN1516
CN0113 40P WHT :BTOB-S
TO M2 BOARD CN1413
STBY
SSCP
CN0109 50P WHT :BTOB-S
TO J BOARD CN1209
P OFF
TV V-OUT
BLK
MODE-1
R1 IN
TV R-OUT
TV L-OUT
V1 IN
L1 IN
V2 IN
TVV2 OUT
MODE 2
L2 OUT
R2 OUT
L2 IN
R2 IN
C2 IN
Y2 IN
Y OUT
C OUT
V3 IN
V3 OUT
MODE-3
L3 OUT
R3 OUT
L3 IN
R3 IN
Y3 IN
C3 IN
Q581 2SC2412K VIDEO-AMP
Q582 2SA1037K VIDEO-AMP
IC251 TDA2052 MAIN-AUDIO-AMP
IC261 TDA2052 MAIN-AUDIO-AMP
Q204 2SA1037K STBY-SW
Q205 2SA1037K MUTE-SW
Q206 2SA1037K DC LEVEL-INTERFACE
Q209 2SC2412K MUTE-SW
Q201 2SC2412K MUTE
Q202 2SC2412K MUTE
D206 BAN202K AUTO-MUTE
D213 BAN202K PROTECT
Q583 2SA2412K
CN5108 10P YEL :S-MICRO
TO H1 BOARD CN1008
LC
FR R IN
FR L IN
FR V IN
FR C IN
FR Y IN
CN0105 5P WHT :S-MICRO
TO D BOARD CN0505
-22V
+22V
POFF
CN0110 7P WHT :S-MICRO
TO J BOARD CN1210
VAR L
VAR R
SP L OUT
SP R OUT
TO D1 BOARD CN0607
VBLK
CN0107 6P RED :S-MICRO
TO D BOARD CN0506
XRAY
H PULSE
HD
ABL

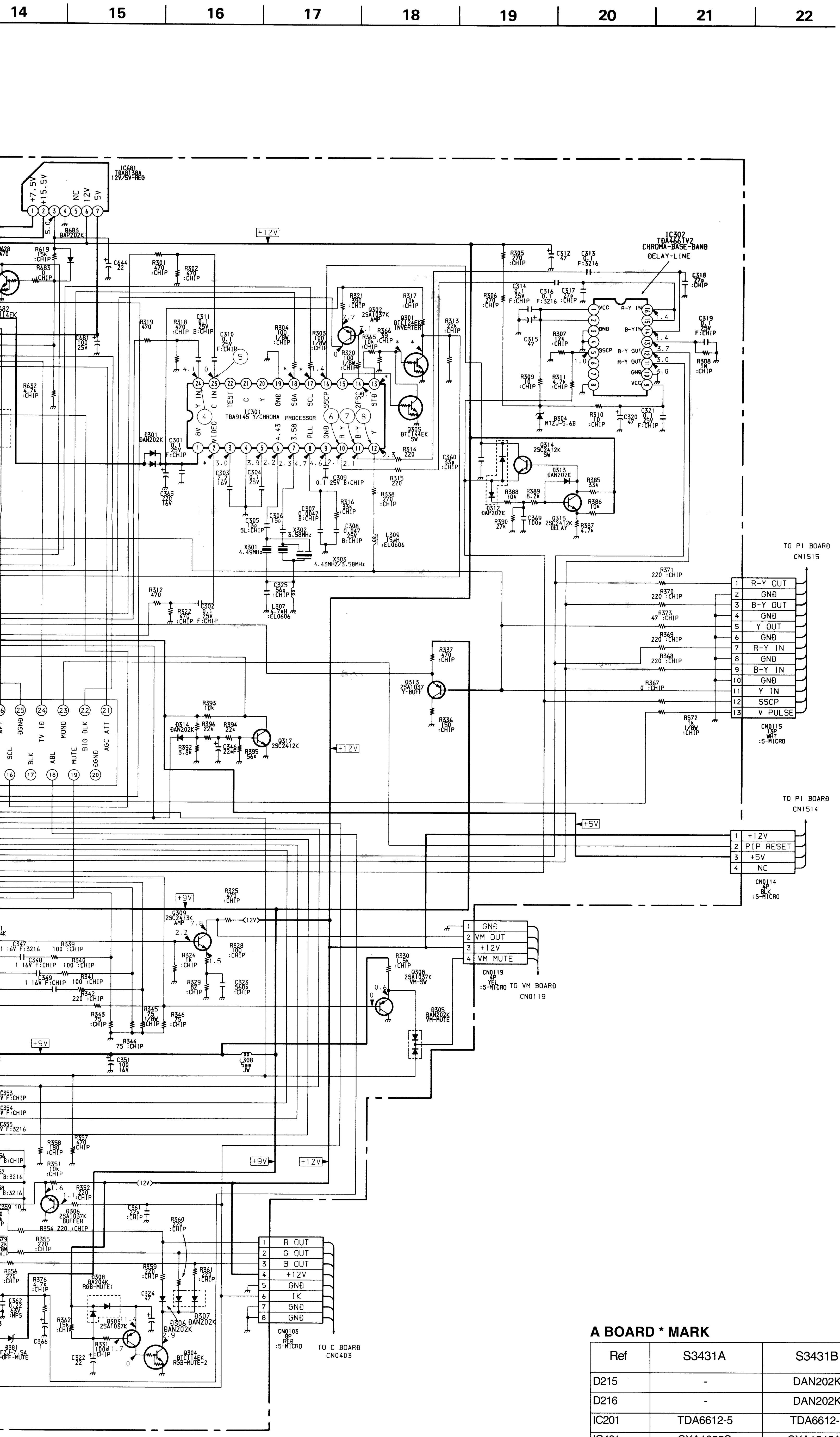
A { TUNER, AUDIO, CONTROL, AUDIO AMP, AV SW, RGB JUNGLE, Y/C PROCESSOR

B-: SSAE2A<345>-A..

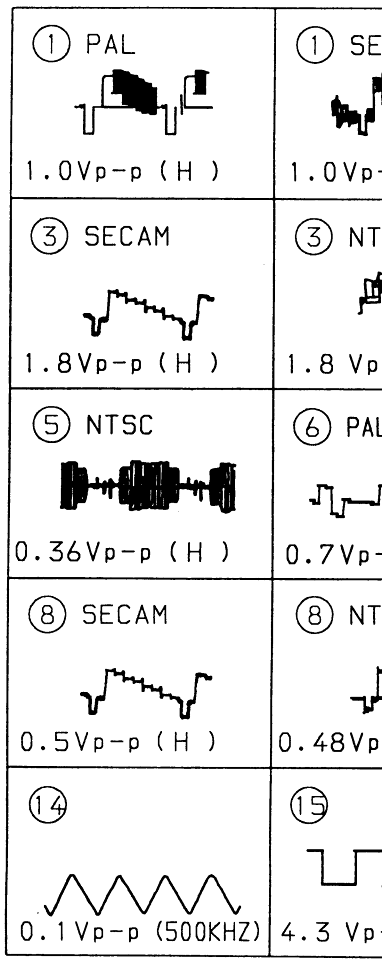

9
10
11
12
13
14
15
16
17
18
19
20
CN0104 8P BLK :S-MICRO
+33V
+15.5V
+17.5V
GND
GND
+7.5V
STD-BY
SW15.5
IC681 TDA8138A 12V/5V-REG
IC684 MC7809CT
IC685 TEA7605 5V-REG
Q071 DTA124EK STBY-INVERTER
Q210 2SC2412K
Q207 2SC2412K AFT-BUFF
Q203 2SC2412K H-PULSE-AMP
Q610 2SB734 7.5V-SW
Q682 DTC114EK
Q681 2SD795A-P 5V-REG
D681 MTZN10B
PS681 0.4A
PS682 0.4A
+12V
+7.5V
+15.5V
+5V
TO A4 BOARD CN0203
CN0127 6P
L IN
R IN
GND
GND
L OUT
R OUT
TO B BOARD CN0302
CN0102 10P BLK :BTOB-P
+5V
C IN
AGND
Y IN
AGND
PAL/NT
2FSC
DGND
SSCP
VIDEO
IC072 X24C16P NVM
D068 DAP202K PROTECT
D077 DAN202K PROTECT
D078 MTZJ5.6B
D079 MTZJ5.6B
IC301 TDA9145 Y/CHROMA PROCESSOR
D301 DAN202K
X301 4.49MHz
X302 3.58MHz
X303 4.43MHZ/3.58MHz
Q302 2SA1037K AMP
Q301 DTC124EK INVERTER
Q305 DTC144EK SW
IC TDA CHROMA-B DELAY-L
Q314 2SC2412K SW
Q315 2SC2412K DELAY
D313 DAN202K
D312 DAP202K
D304 MTZJ-5.6B
CN0113 40P WHT :BTOB-S
TO M2 BOARD CN1413
CN0116 4P WHT :S-MICRO
TO P1 BOARD CN1516
V3
GND
SCL
SDA
STBY
SSCP
B
JGND
G
12V
R
5V
COR
JGND
TEXT BLK
5V STBY
H SYNC
LC
H PULSE
5V
VLC
VIDEO
FH
SYNC IN
V S/S
SDA
V PULSE
SCL
IK
DGND
V OFF
CS
SDA
AFT
SCL
DGND
BLK
TV ID
ABL
MONO
MUTE
BIG BLK
DGND
AGC ATT
Q317 2SC2412K
D314 DAN202K
Q313 2SA1037 Y-BUFF
IC304 CXA1587S RGB-JUNGLE
FH/2FH VM OUT
Y IN
R1 IN
B-Y IN
G1 IN
R-Y IN
B1 IN
H IN
FS1
H S/S
APER
V IN
IREF1
FBP IN
VCC1
XRAY
FS2
VCC2
HSW
IREF2
R2 IN
VCC3
G2 IN
VLC
B2 IN
GND2
GND1
HVCO
R S/H
AFC
G S/H
FH
B S/H
HD OUT
IK IN
V S/S
R OUT
VTIM
G OUT
SSCP
B OUT
SCL
VBLK
SDA
ABL IN
V OFF ABL FIL
Q581 2SC2412K VIDEO-AMP
Q582 2SA1037K VIDEO-AMP
Q202 2SC2412K MUTE
Q201 2SC2412K MUTE
D206 DAN202K AUTO-MUTE
Q583 2SA2412K
D311 DA204K
D571 DA204K
Q312 DTC114EK IK-SW
Q309 2SC2413K AMP
Q308 2SA1037K VM-SW
D305 DAN202K VM-MUTE
Q306 2SA1037K BUFFER
Q303 2SA1037K
D308 DA204K RGB-MUTE1
D306 DAN202K
D307 DAN202K
Q304 DTC114EK RGB-MUTE-2
D381 MTZJ-7.5A V-OFF-MUTE
CF581 CSB500F2
CN0119 4P YEL :S-MICRO
TO VM BOARD CN0119
GND
VM OUT
+12V
VM MUTE
CN0103 8P RED :S-MICRO
TO C BOARD CN0403
R OUT
G OUT
B OUT
+12V
GND
IK
GND
GND
CN0107 4P RED :S-MICRO
SDA
SCL
GND
VBLK
TO D1 BOARD CN0607
CN0106 5P BLK :S-MICRO
XRAY
H PULSE
HD
GND
ABL
TO D BOARD CN0506
(9V)
(5V)
(12V)
+9V
+12V
+5V
15.5V

A BOARD * M

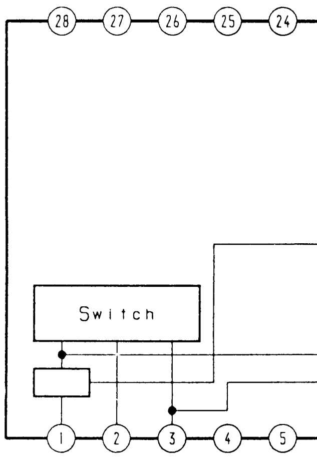
Ref
D215
D216
IC201
IC401
IFB101
R296
R297
TU101


14
15
16
17
18
19
20
21
22
IC681 TDA8138A 12V/5V-REG
+7.5V
+15.5V
NC
12V
5V
+12V
IC302 TDA4661V2 CHROMA-BASE-BAND DELAY-LINE
IC301 TDA9145 Y/CHROMA PROCESSOR
Q301 DTC144EK INVERTER
Q302 2SA1037K AMP
Q305 DTC144EK SW
D301 DAN202K
D304 MTZJ-5.6B
Q314 2SC2412K SW
Q313 DAN202K
Q315 2SC2412K DELAY
D312 DAP202K
X301 4.43MHz
X302 3.58MHz
X303 4.43MHZ/3.58MHz
L309 15μH :EL0606
L307 4.7μH :EL0606
TO P1 BOARD CN1515
1 R-Y OUT
2 GND
3 B-Y OUT
4 GND
5 Y OUT
6 GND
7 R-Y IN
8 GND
9 B-Y IN
10 GND
11 Y IN
12 SSCP
13 V PULSE
CN0115 13P WHT :S-MICRO
Q313 2SA1037 Y-BUFF
Q317 2SC2412K
D314 DAN202K
+12V
TO P1 BOARD CN1514
1 +12V
2 PIP RESET
3 +5V
4 NC
CN0114 4P BLK :S-MICRO
+5V
+9V
Q309 2SC2413K AMP
1 GND
2 VM OUT
3 +12V
4 VM MUTE
CN0119 4P YEL :S-MICRO TO VM BOARD CN0119
Q308 2SA1037K VM-SW
D305 DAN202K VM-MUTE
L308 5mm JW
Q306 2SA1037K BUFFER
1 R OUT
2 G OUT
3 B OUT
4 +12V
5 GND
6 IK
7 GND
8 GND
CN0103 8P RED :S-MICRO TO C BOARD CN0403
D308 DA204K RGB-MUTE1
Q303 2SA1037K
D306 DAN202K
D307 DAN202K
Q304 DTC144EK RGB-MUTE-2
D381 MTZJ-7.5A OFF-MUTE

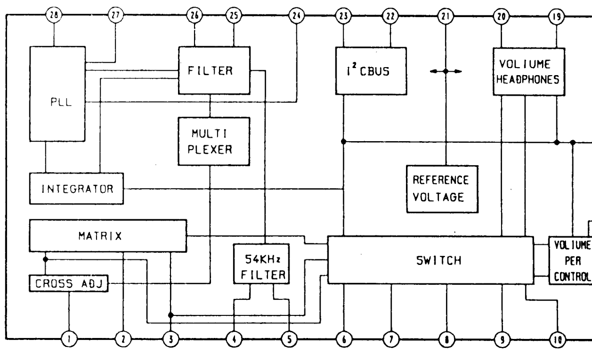
WAVEFORMS A BOARD


① PAL
1.0Vp-p (H)
① SE
1.0Vp-
③ SECAM
1.8Vp-p (H)
③ NT
1.8 Vp
⑤ NTSC
0.36Vp-p (H)
⑥ PAL
0.7Vp-
⑧ SECAM
0.5Vp-p (H)
⑧ NT
0.48Vp
⑭
0.1Vp-p (500KHZ)
⑮
4.3 Vp-

A BOARD IC201 TDA662



A BOARD IC201 TDA6612-5


PLL
FILTER
I²CBUS
VOLUME HEADPHONES
MULTI PLEXER
INTEGRATOR
REFERENCE VOLTAGE
MATRIX
54KHz FILTER
SWITCH
CROSS ADJ
VOLUME PER CONTROL

Voltages indicated with the mark ※ on the schematic diagram are shown in the table below.

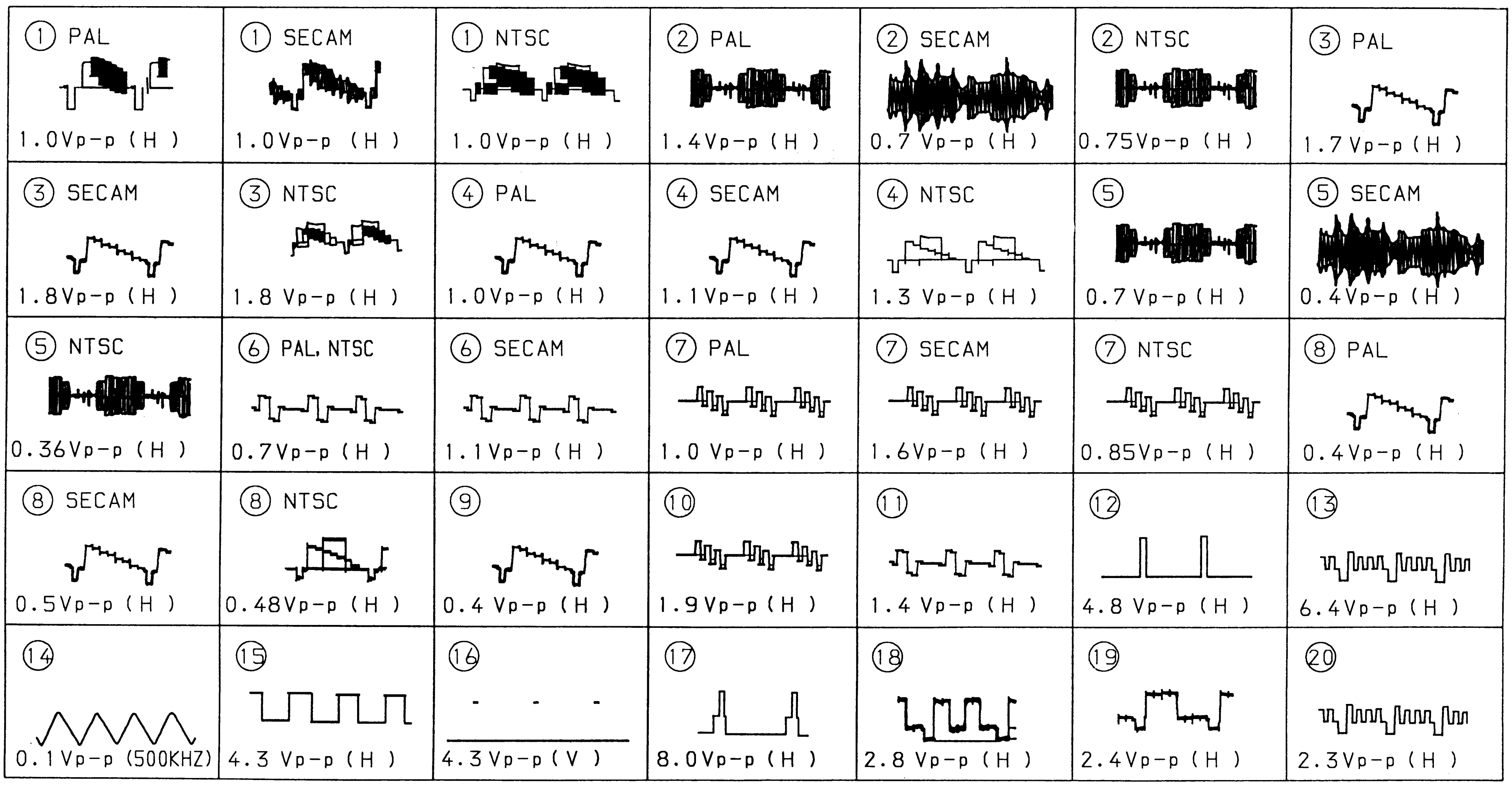
A BOARD

	PAL	SECAM	NTSC4.43	NTSC3.58
IC301 ②	4.0	4.0	4.0	4.8
⑬	0	0	4.9	4.9
⑰	3.1	2.8	2.5	2.5
⑱	3.1	3.1	2.8	2.8
Q301 (B)	0	0	1.6	1.6
(C)	4.4	4.4	0.1	0.1

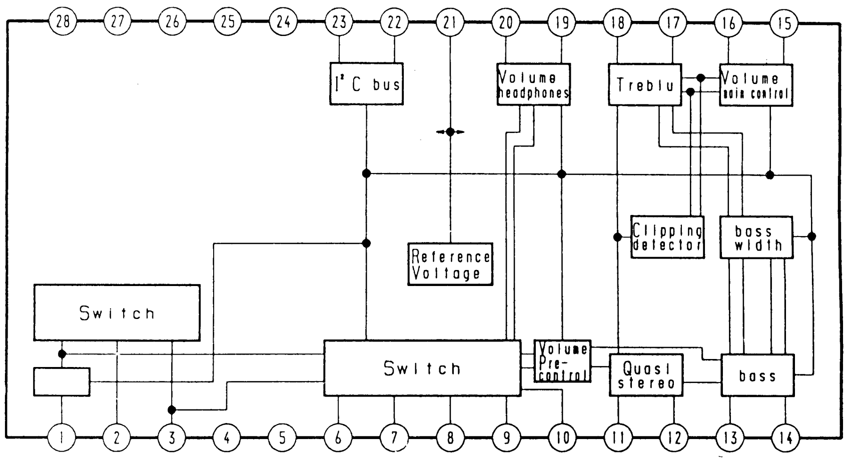
A BOARD * MARK

Ref	S3431A	S3431B	S3431D	S3433E	S343
D215	-	DAN202K	-	-	-
D216	-	DAN202K	-	-	-
IC201	TDA6612-5	TDA6612-5	TDA6612-5	TDA6612-5	TDA661
IC401	CXA1855S	CXA1545AS	CXA1855S	CXA1855S	CXA185
IFB101	IFH-389	IFH-389F	IFH-389	IFH-389	IFH-3
R296	-	330	-	-	-
R297	-	120	-	-	-
TU101	BTP-EC411	BTP-EC411	BTP-EC411	BTP-EC411	BTP-EC

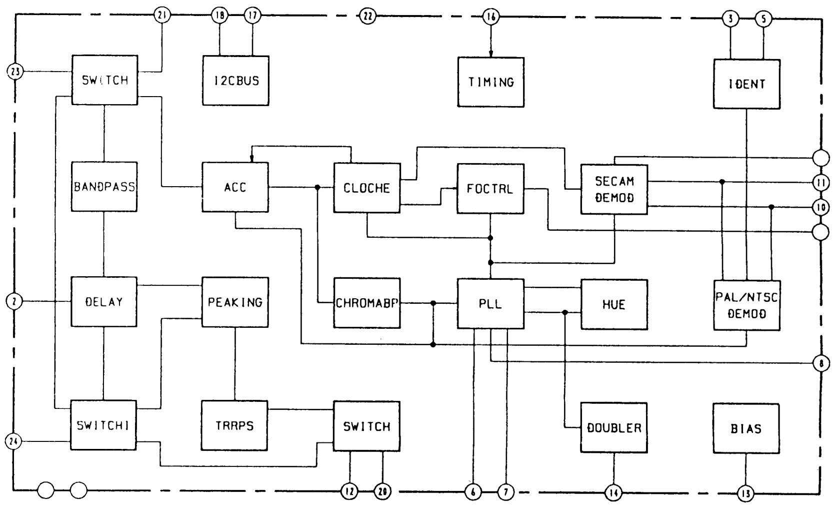
WAVEFORMS A BOARD



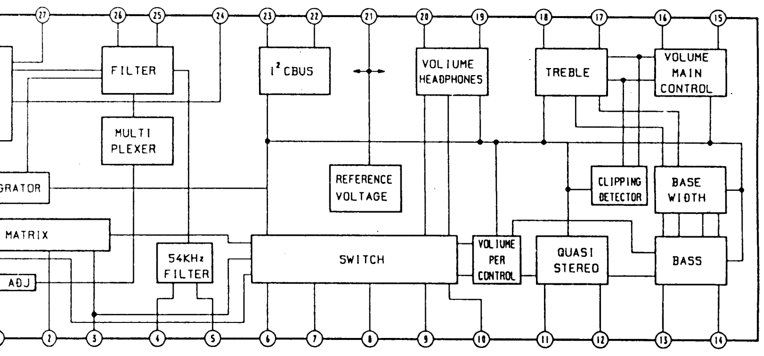
A BOARD IC201 TDA6622-5 (UK Model only)


I²C bus
Volume headphones
Treblu
Volume main control
Reference Voltage
Clipping detector
bass width
Switch
Switch
Volume Pre-control
Quasi stereo
bass

A BOARD IC301 TDA9145/N2B


SWITCH
I2CBUS
TIMING
IDENT
BANDPASS
ACC
CLOCHE
FOCTRL
SECAM DEMOD
DELAY
PEAKING
CHROMABP
PLL
HUE
PAL/NTSC DEMOD
SWITCH1
TRAPS
SWITCH
DOUBLER
BIAS

ARD IC201 TDA6612-5


FILTER
MULTI PLEXER
I²CBUS
VOLIUME HEADPHONES
TREBLE
VOLUME MAIN CONTROL
GRATOR
REFERENCE VOLTAGE
CLIPPING DETECTOR
BASE WIDTH
MATRIX
54KHz FILTER
SWITCH
VOLUME PER CONTROL
QUASI STEREO
BASS
ADJ

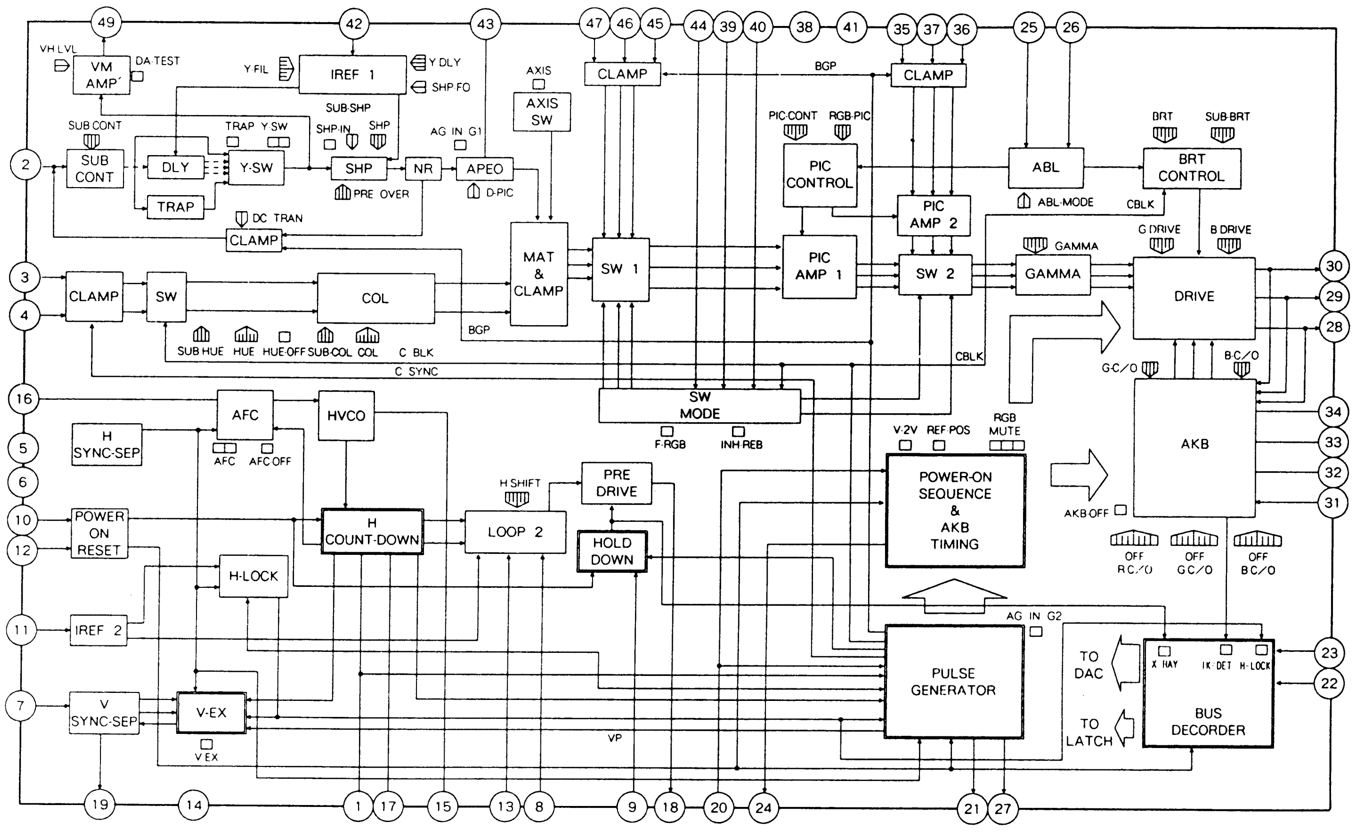
ges indicated with the mark ※
e schematic diagram are shown
e table below.

ARD

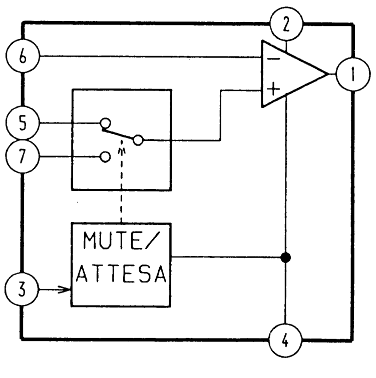
	PAL	SECAM	NTSC4.43	NTSC3.58
②	4.0	4.0	4.0	4.8
⑬	0	0	4.9	4.9
⑰	3.1	2.8	2.5	2.5
⑱	3.1	3.1	2.8	2.8
(B)	0	0	1.6	1.6
(C)	4.4	4.4	0.1	0.1

S3431D	S3433E	S3431K	S3432U
-	-	-	-
-	-	-	-
TDA6612-5	TDA6612-5	TDA6612-5	TDA6622-5
CXA1855S	CXA1855S	CXA1855S	CXA1855S
IFH-389	IFH-389	IFH-389	IFH-395
-	-	-	-
-	-	-	-
BTP-EC411	BTP-EC411	BTP-EC411	U944C

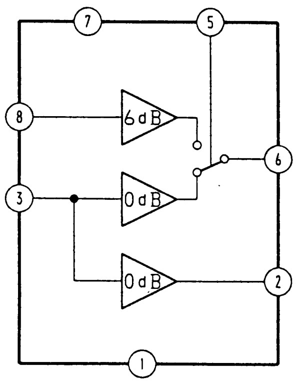
A BOARD IC304 CXA1587S


VH LVL
VM AMP
DA TEST
Y FIL
IREF 1
Y DLY
SHP FO
AXIS
AXIS SW
SUB SHP
SUB CONT
TRAP Y SW
SHP IN
SHP
AG IN G1
SUB CONT
DLY
Y-SW
SHP
NR
APEO
TRAP
PRE OVER
D-PIC
DC TRAN
CLAMP
CLAMP
BGP
CLAMP
PIC CONT
RGB PIC
PIC CONTROL
ABL
BRT
SUB BRT
BRT CONTROL
ABL MODE
CBLK
PIC AMP 2
MAT & CLAMP
SW 1
PIC AMP 1
SW 2
GAMMA
GAMMA
G DRIVE
B DRIVE
DRIVE
CLAMP
SW
COL
SUB HUE
HUE
HUE OFF
SUB COL
COL
C BLK
BGP
C SYNC
CBLK
G-C/O
B-C/O
AFC
HVCO
SW MODE
F-RGB
INH-REB
H SYNC-SEP
AFC
AFC OFF
V-2V
REF POS
RGB MUTE
AKB
H SHIFT
PRE DRIVE
POWER-ON SEQUENCE & AKB TIMING
POWER ON RESET
H COUNT-DOWN
LOOP 2
HOLD DOWN
AKB OFF
OFF RC/O
OFF GC/O
OFF BC/O
H-LOCK
IREF 2
AG IN G2
PULSE GENERATOR
TO DAC
X RAY
IK DET
H-LOCK
V SYNC-SEP
V-EX
V EX
VP
TO LATCH
BUS DECORDER

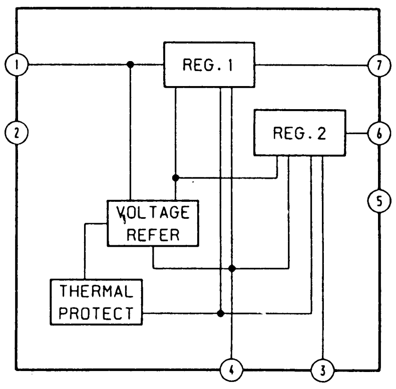
A BOARD IC251/261 TDA2052


MUTE/ ATTESA

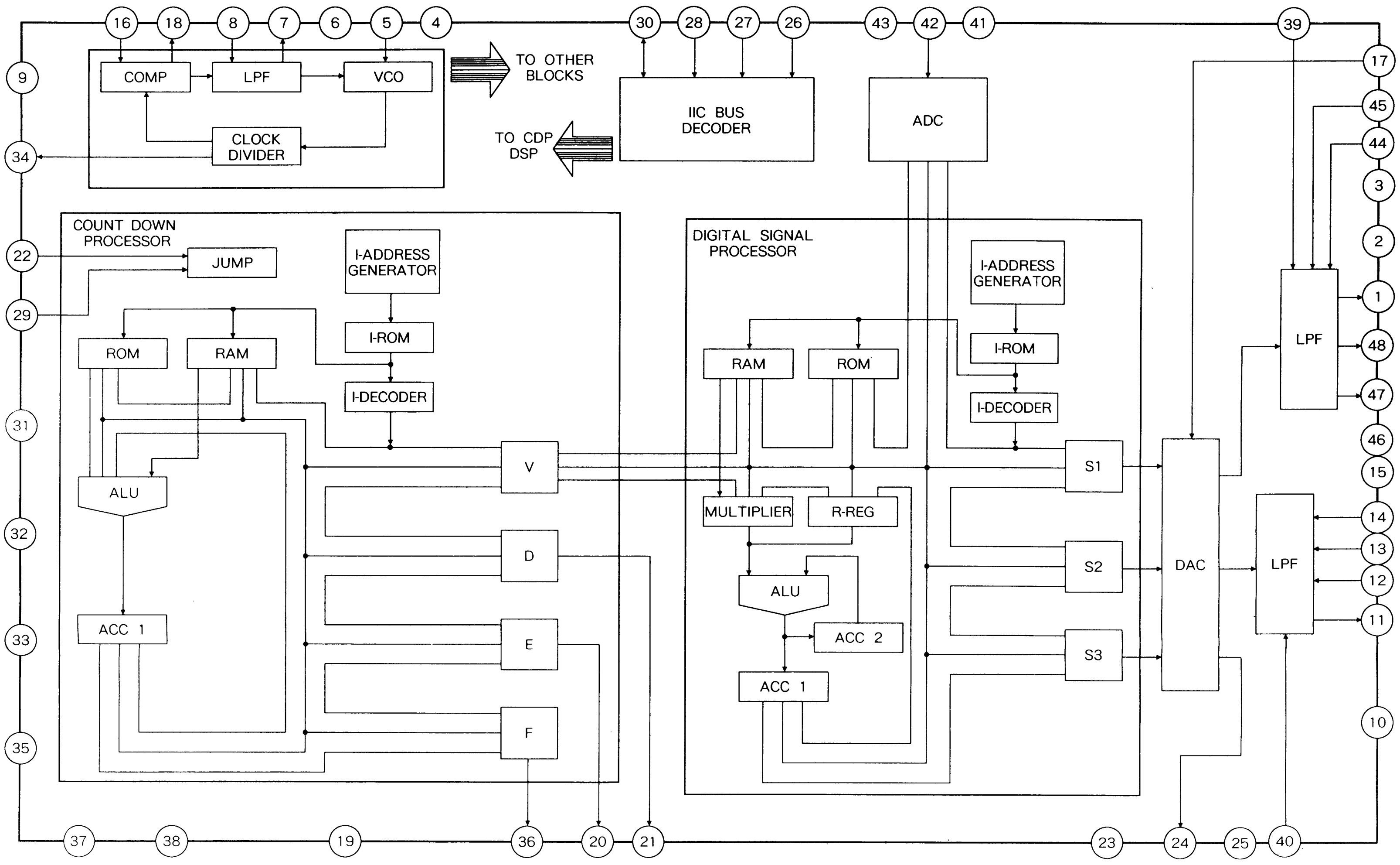
A BOARD IC402 TEA2114



A BOARD IC681 TDA8138A


REG. 1
REG. 2
VOLTAGE REFER
THERMAL PROTECT

M2 BOARD IC561 CXD2018Q


16
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COMP
LPF
VCO
CLOCK
DIVIDER
TO OTHER
BLOCKS
TO CDP
DSP
IIC BUS
DECODER
ADC
17
45
44
3
2
1
48
47
46
15
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COUNT DOWN
PROCESSOR
JUMP
I-ADDRESS
GENERATOR
I-ROM
I-DECODER
ROM
RAM
ALU
ACC 1
V
D
E
F
DIGITAL SIGNAL
PROCESSOR
RAM
ROM
I-ADDRESS
GENERATOR
I-ROM
I-DECODER
MULTIPLIER
R-REG
ALU
ACC 2
ACC 1
S1
S2
S3
DAC
LPF
LPF
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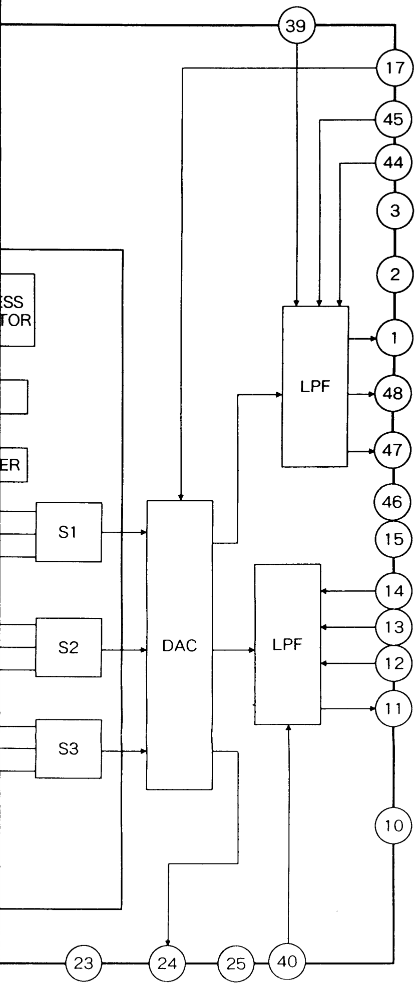
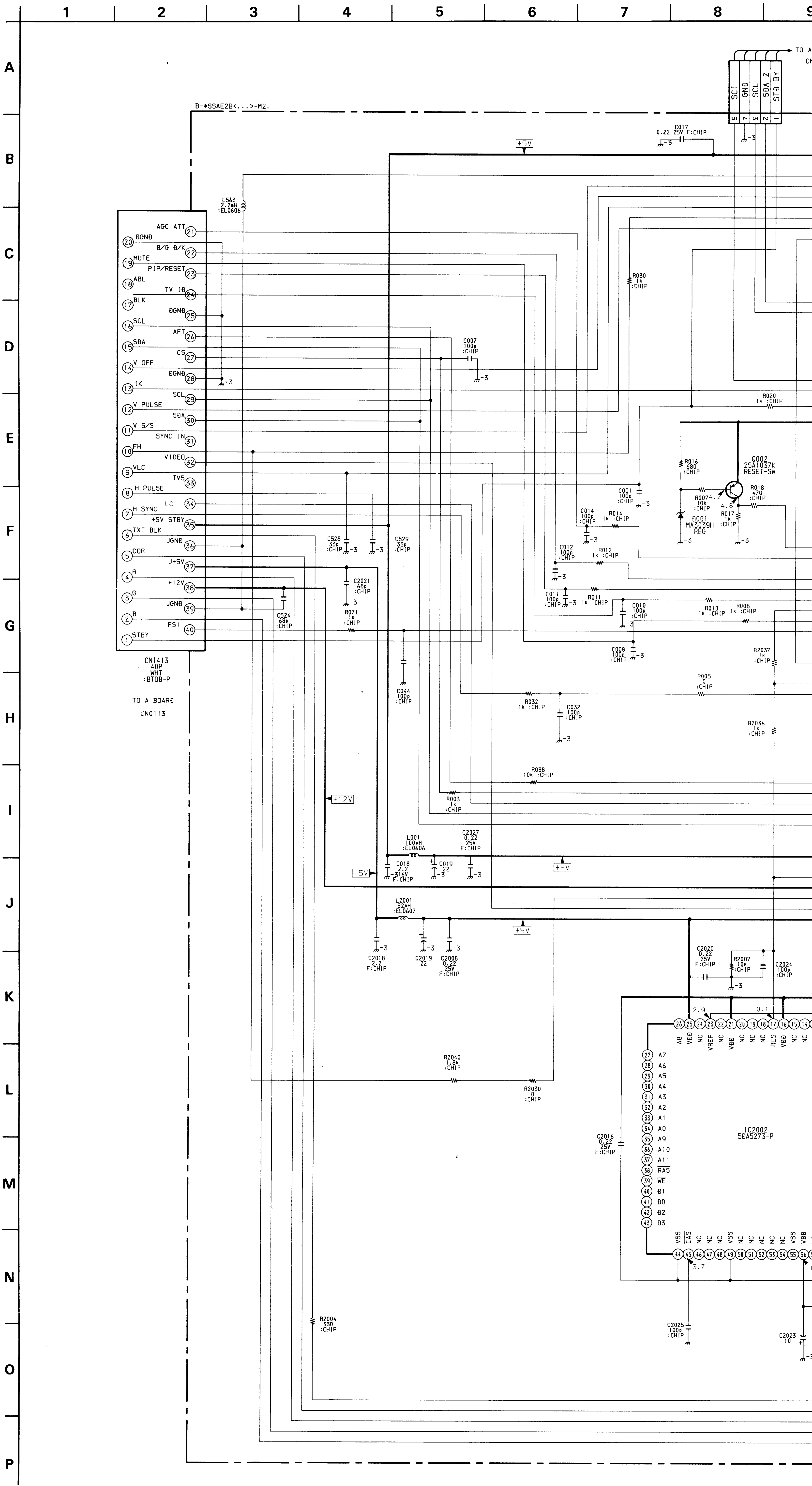


ESS
TOR
ER
LPF
S1
S2
S3
DAC
LPF



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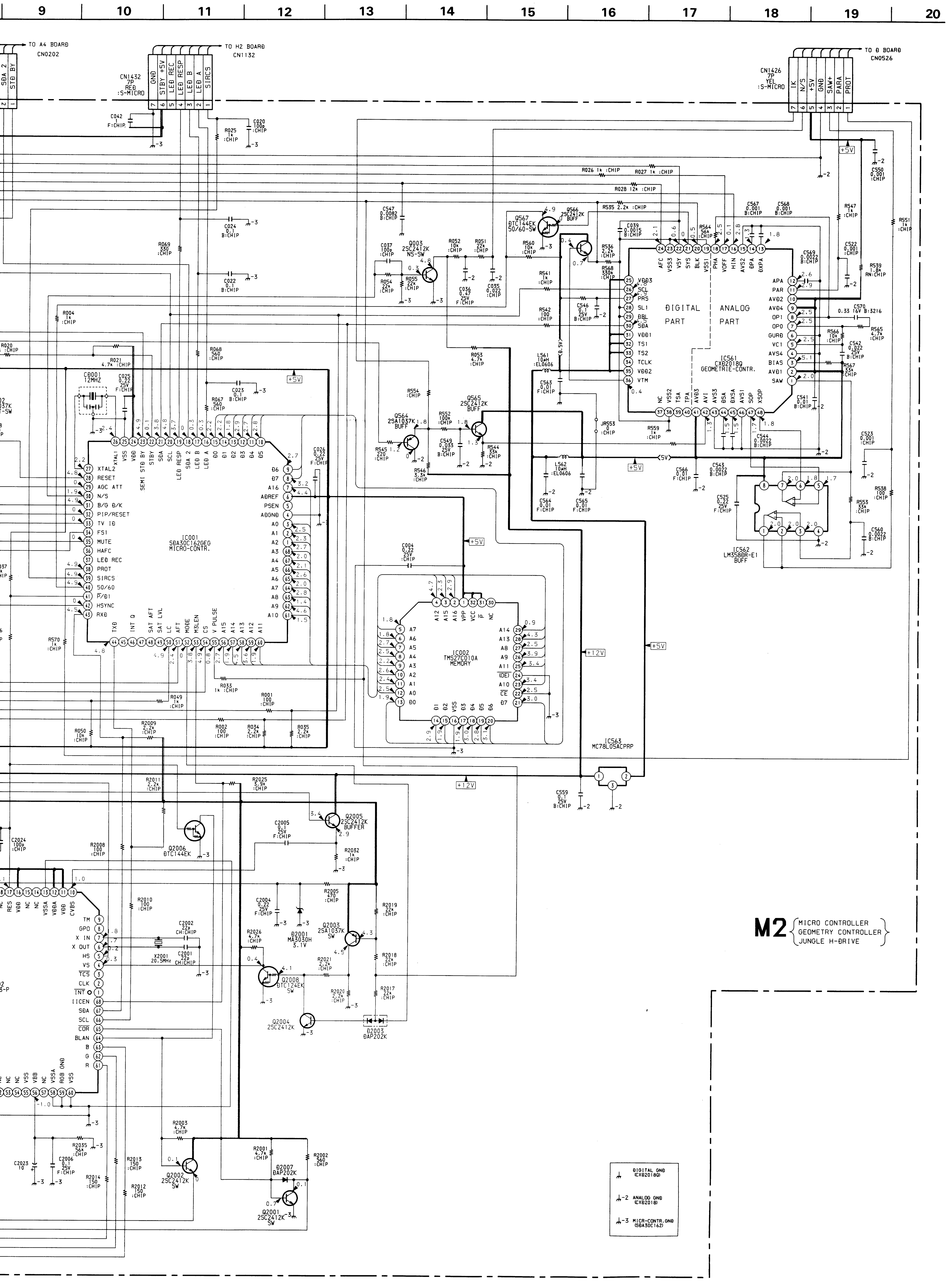
O
P
B-*SSAE2B<...>-M2.
TO A
SCI
GND
SCL
SDA 2
STB BY
C017 0.22 25V F:CHIP
+5V
L563 2.2μH :EL0606
AGC ATT
BGND
B/G D/K
MUTE
PIP/RESET
ABL
TV ID
BLK
DGND
SCL
AFT
SDA
CS
V OFF
DGND
IK
SCL
V PULSE
SDA
V S/S
SYNC IN
FH
VIDEO
VLC
TVS
H PULSE
LC
H SYNC
+5V STBY
TXT BLK
JGND
COR
J+5V
R
+12V
G
JGND
B
FSI
STBY
CN1413 40P WHT :BTOB-P
TO A BOARD CN0113
C007 100p :CHIP
R030 1k :CHIP
R020 1k :CHIP
Q002 2SA1037K RESET-SW
R016 680 :CHIP
R007 10k :CHIP
D001 MA3039H REG
R017 1k :CHIP
R018 470 :CHIP
C001 100p :CHIP
C014 100p :CHIP
R014 1k :CHIP
C012 100p :CHIP
R012 1k :CHIP
C011 100p :CHIP
R011 1k :CHIP
C010 100p :CHIP
R010 1k :CHIP
R008 1k :CHIP
C008 100p :CHIP
C528 33p :CHIP
C529 33p :CHIP
C2021 68p :CHIP
R071 1k :CHIP
C524 68p :CHIP
C044 100p :CHIP
R2037 1k :CHIP
R005 0 :CHIP
R032 1k :CHIP
C032 100p :CHIP
R2036 1k :CHIP
R038 10k :CHIP
R003 1k :CHIP
+12V
L001 100μH :EL0606
C2027 0.22 25V F:CHIP
C018 2.2 16V F:CHIP
C019 22
+5V
L2001 82μH :EL0607
C2018 2.2 F:CHIP
C2019 22
C2008 0.22 25V F:CHIP
C2020 0.22 25V F:CHIP
R2007 10k :CHIP
C2024 100p :CHIP
2.9
0.1
A8 VDD NC VREF NC VDD NC NC NC RES VDD NC NC
A7 A6 A5 A4 A3 A2 A1 A0 A9 A10 A11 RAS WE D1 D0 D2 D3
IC2002 SDA5273-P
C2016 0.22 25V F:CHIP
VSS CAS NC NC NC VSS NC NC NC NC VSS VBB
3.7
R2040 1.8k :CHIP
R2030 0 :CHIP
R2004 330 :CHIP
C2025 100p :CHIP
C2023 10
-3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TO A4 BOARD CN0202
TO H2 BOARD CN1132
CN1432 7P RED :S-MICRO
GND
STBY +5V
LED REC
LED RESP
LED B
LED A
SIRCS
TO D BOARD CN0526
CN1426 7P YEL :S-MICRO
IK
N/S
+5V
GND
SAW+
PARA
PROT
IC001 SDA30C162GEG MICRO-CONTR.
XTAL2
RESET
AGC ATT
N/S
B/G D/K
PIP/RESET
TV ID
FS1
MUTE
HAFC
LED REC
PROT
SIRCS
50/60
P/D1
HSYNC
RXD
CD001 12MHZ
IC561 CXD2018Q GEOMETRIE-CONTR.
DIGITAL PART
ANALOG PART
Q567 DTC144EK 50/60-SW
Q566 2SC2412K BUFF
Q003 2SC2412K NS-SW
Q564 2SA1037K BUFF
Q565 2SC2412K BUFF
IC002 TMS27C010A MEMORY
IC562 LM358DR-E1 BUFF
IC563 MC78L05ACPRP
Q2005 2SC2412K BUFFER
Q2006 DTC144EK
Q2003 2SA1037K SW
D2001 MA3030H 3.1V
Q2008 DTC124EK SW
Q2004 2SC2412K
D2003 DAP202K
X2001 20.5MHz
Q2002 2SC2412K SW
D2007 DAP202K
Q2001 2SC2412K SW
+5V
+12V
5V

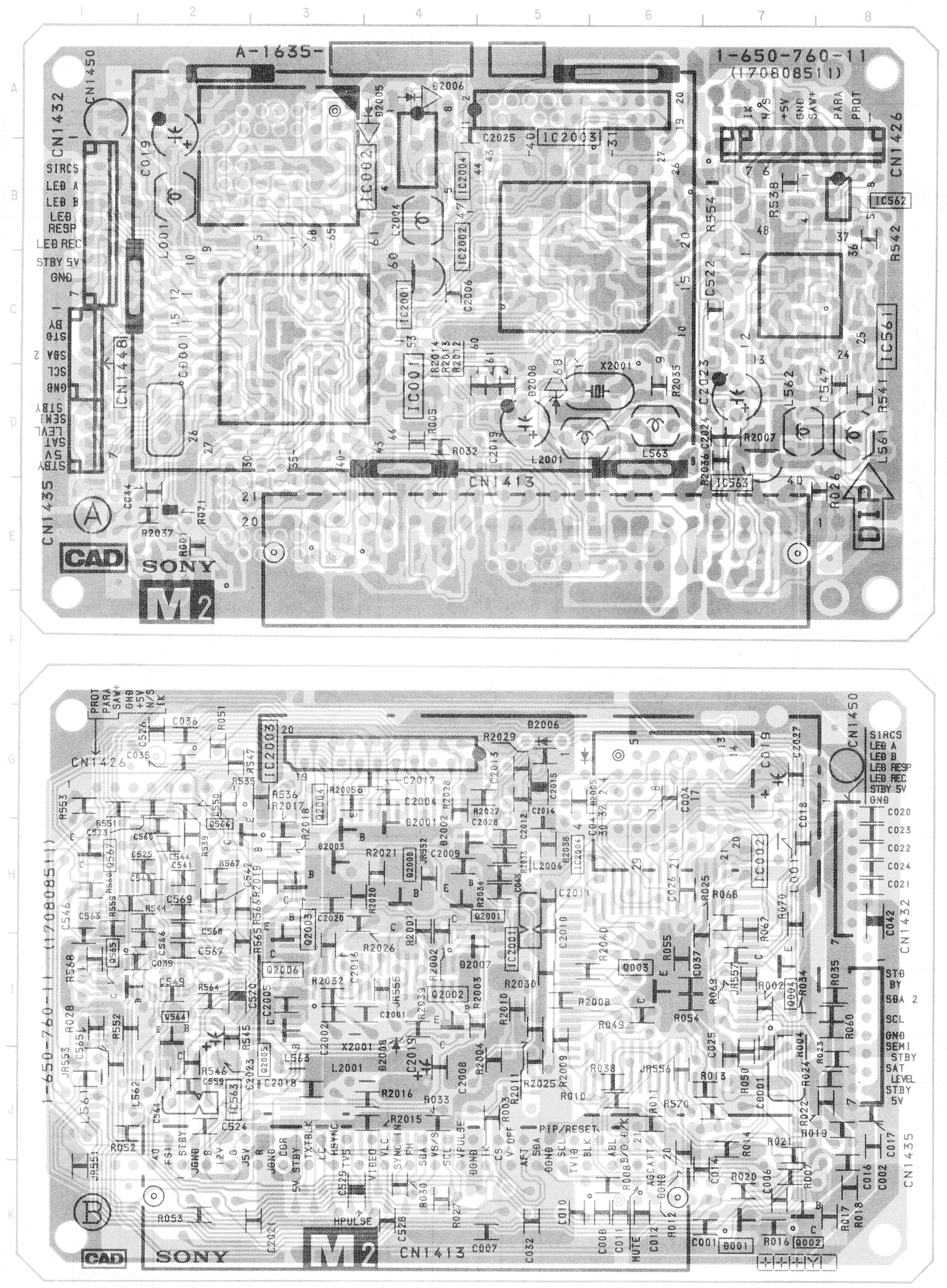
M2

MICRO CONTROLLER
GEOMETRY CONTROLLER
JUNGLE H-DRIVE

⏚	DIGITAL GND (CXD2018Q)
⏚-2	ANALOG GND (CXD2018Q)
⏚-3	MICR-CONTR. GND (SDA30C162)

M2 [MICRO CONTROLLER, GEOMETRY CONTROLLER, JUNGLE, H – DRIVE] **D** [H/V OUT, PIN OUT, POWER SUPPLY]

– M2 BOARD –



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I
J
K
A-1635-
1-650-760-11
(170808511)
CN1450
CN1432
CN1448
CN1435
CN1413
CN1426
IC001
IC002
IC2001
IC2002
IC2003
IC2004
IC561
IC562
IC563
X2001
SIRCS
LED A
LED B
LED RESP
LED REC
STBY 5V
GND
STB
BY
SDA 2
SCL
SEMI
STBY
SAT
LEVEL
DIP
PIP/RESET
HPULSE
MUTE
A
B
CAD
SONY
M2

IC	
IC001	C - 4
IC002	B - 3, H - 7
IC561	C - 8
IC562	B - 8
IC563	D - 7, J - 3
IC2001	C - 4, I - 5
IC2002	C- 5
IC2003	B - 5, G - 3
IC2004	B - 4, H - 5

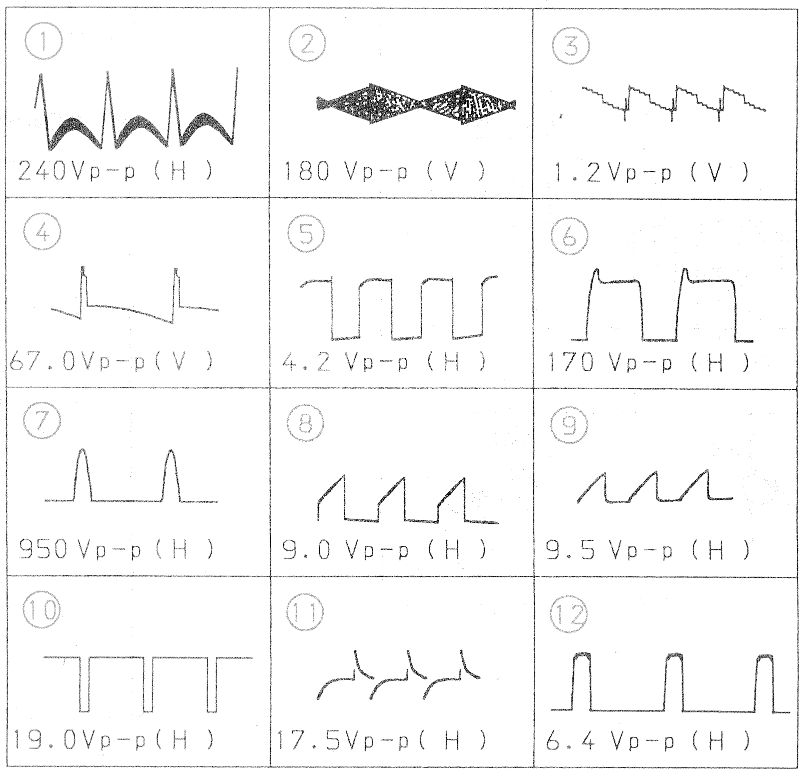
TRANSISTOR	
Q002	K - 7
Q003	I - 6
Q564	I - 2
Q565	I - 1
Q566	G - 2
Q567	H - 1
Q2001	H - 5
Q2002	I - 4
Q2003	H - 3
Q2005	J - 3
Q2006	I - 3
Q2008	H - 4

DIODE	
D001	K - 7
D2001	G - 4
D2002	H - 4
D2003	H - 3

Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

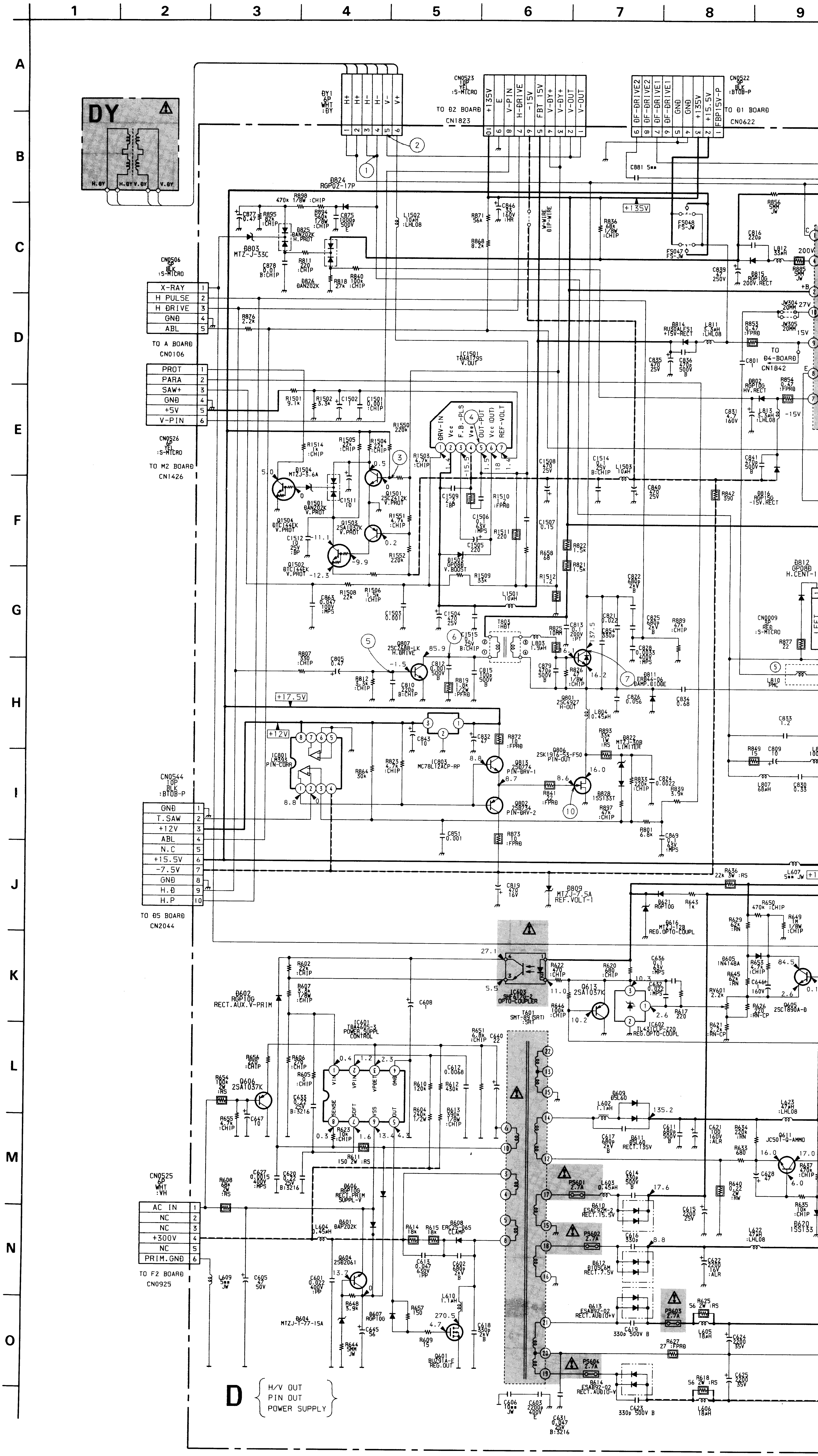
WAVEFORMS D BOARD



IC	
IC001	C - 4
IC002	B - 3, H - 7
IC561	C - 8
IC562	B - 8
IC563	D - 7, J - 3
IC2001	C - 4, I - 5
IC2002	C- 5
IC2003	B - 5, G - 3
IC2004	B - 4, H - 5

TRANSISTOR	
Q002	K - 7
Q003	I - 6
Q564	I - 2
Q565	I - 1
Q566	G - 2
Q567	H - 1
Q2001	H - 5
Q2002	I - 4
Q2003	H - 3
Q2005	J - 3
Q2006	I - 3
Q2008	H - 4

DIODE	
D001	K - 7
D2001	G - 4
D2002	H - 4
D2003	H - 3



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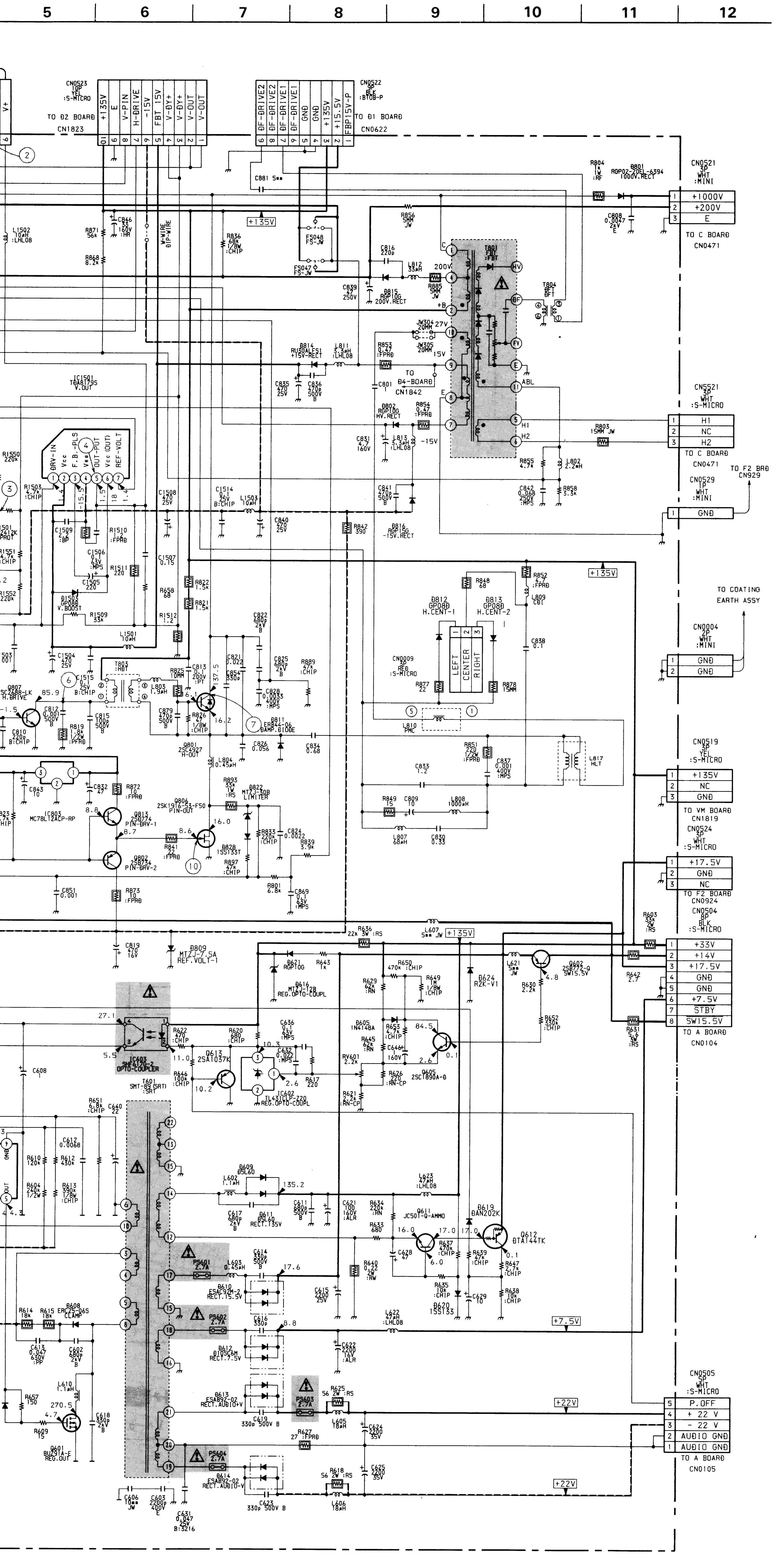
L
M
N
O
DY
H.DY
H.DY V.DY
V.DY
DY1 6P WHT :BY
H+ H+ H- H- V- V+
CN0523 10P YEL :S-MICRO
TO D2 BOARD CN1823
+135V E V-PIN H-DRIVE -15V FBT 15V V-DY+ V-DY+ V-OUT V-OUT
DF-DRIVE2 DF-DRIVE2 DF-DRIVE1 DF-DRIVE1 GND GND +135V +15.5V FBP15V-P
CN0522 9P BLK :BTOB-P
TO D1 BOARD CN0622
D824 RGP02-17P
D803 MTZ-J-33C
D825 DAN202K H.PROT
D826 DAN202K
L1502 10mH :LHL08
+135V
FS048 FS-JW
FS047 FS-JW
V-WIRE DIP-WIRE
CN0506 5P BLK :S-MICRO
X-RAY
H PULSE
H DRIVE
GND
ABL
TO A BOARD CN0106
PROT
PARA
SAW+
GND
+5V
V-PIN
CN0526 6P YEL :S-MICRO
TO M2 BOARD CN1426
IC1501 TDA8179S V.OUT
DRV-IN Vcc F.B.-PLS GND OUT-PUT Vcc (OUT) REF-VOLT
D814 RU3ALFS1 +15V-RECT
D815 RGP10G 200V.RECT
TO D4-BOARD CN1842
D802 RGP10G HV.RECT
D816 RGP15G -15V.RECT
D812 GP08D H.CENT-I
CN0009 3P RED :S-MICRO
L810 PMC
Q1504 MTZJ-5.6A
Q1501 DAN202K V.PROT
Q1501 2SC2412K V.PROT
Q1503 2SA1037K V.PROT
Q1504 DTC144EK V.PROT
Q1502 DTC144EK V.PROT
D1503 GP08D V.BOOST
T803 HDT
Q807 2SC2688-LK H.DRIVE
Q801 2SC4927 H-OUT
D811 ERB44-06 DAMP.DIODE
+17.5V
+12V
IC801 LM358 PIN-CORR
IC803 MC78L12ACP-RP
Q813 2SD774 PIN-DRV-1
Q802 2SB734 PIN-DRV-2
Q806 2SK1916-S3-F50 PIN-OUT
D822 MTZ-J-20B LIMITER
D828 1SS133T
CN0544 10P BLK :BTOB-P
GND
T.SAW
+12V
ABL
N.C
+15.5V
-7.5V
GND
H.D
H.P
TO D5 BOARD CN2044
D809 MTZ-J-7.5A REF.VOLT-1
D621 RGP10G
D616 MTZ-J-12B REG.OPTO-COUPL
D605 1N4148A
Q605 2SC1890A-D
IC603 SHF4170-2 OPTO-COUPLER
Q613 2SA1037K
IC602 TL431CLP-220 REG.OPTO-COUPL
D602 RGP10G RECT.AUX.V-PRIM
T601 SMT-89 (SRT) :SRT
IC601 TDA4605-3 POWER SUPPL CONTROL
VIN VPIN VPDET GND SENSE SOFT VSS OUT
Q606 2SA1037K
D609 D8L60
D611 D8L60 RECT.135V
Q611 JC501-Q-AMMO
D620 1SS133
D606 RGP10G RECT.PRIM SUPPL-V
D601 BAP202K
D608 ERC25-06S CLAMP
PS601 2.7A
D610 ESAC92M-2 RECT.15.5V
PS602 2.7A
D612 D10SC6M RECT.7.5V
PS603 2.7A
D613 ESAB92-02 RECT.AUDIO+V
PS604 2.7A
D614 ESAB92-02 RECT.AUDIO-V
CN0525 6P WHT :VH
AC IN
NC
NC
+300V
NC
PRIM.GND
TO F2 BOARD CN0925
Q604 2SD2061
D604 MTZJ-T-77-15A
D607 RGP10G
Q601 BUZ91A-F REG.OUT

D H/V OUT
PIN OUT
POWER SUPPLY

B-#5SAE2A<34S>-D..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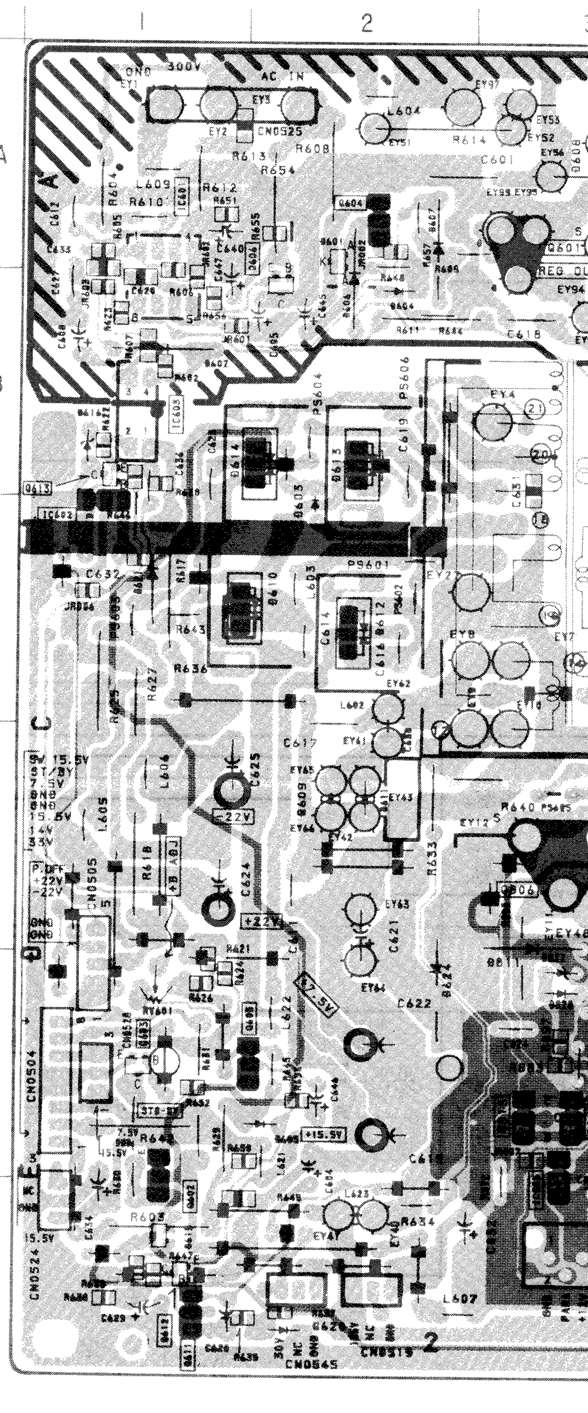
CN0523 10P YEL :S-MICRO
TO D2 BOARD CN1823
+135V
E
V-PIN
H-DRIVE
-15V
FBT 15V
V-DY+
V-DY-
V-OUT
CN0522 8P BLK :BTOB-P
TO D1 BOARD CN0622
DF-DRIVE2
DF-DRIVE1
GND
+135V
+15.5V
FBP15V-P
CN0521 3P WHT :MINI
+1000V
+200V
E
TO C BOARD CN0471
T801 FBT :FBT
T804 DFT
CN5521 3P WHT :S-MICRO
H1
NC
H2
TO C BOARD CN0471
CN0529 1P WHT :MINI
GND
TO F2 BRD CN929
IC1501 TDA8179S V.OUT
TO COATING EARTH ASSY
CN0004 2P WHT :MINI
GND
GND
CN0009 3P RED :S-MICRO
LEFT
CENTER
RIGHT
CN0519 3P YEL :S-MICRO
+135V
NC
GND
TO VM BOARD CN1819
CN0524 3P WHT :S-MICRO
+17.5V
GND
NC
TO F2 BOARD CN0924
CN0504 8P BLK :S-MICRO
+33V
+14V
+17.5V
GND
GND
+7.5V
STBY
SW15.5V
TO A BOARD CN0104
IC603 SHF618-2 OPTO-COUPLER
IC602 TL431CLP-220 REG.OPTO-COUPL
T601 SMT-89 (SRT) :SRT
CN0505 5P WHT :S-MICRO
P.OFF
+22V
-22V
AUDIO GND
AUDIO GND
TO A BOARD CN0105
PS401 2.7A
PS402 2.7A
PS403 2.7A
PS404 2.7A
Q601 BUZ91A-F REG.OUT

- D BOARD -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E
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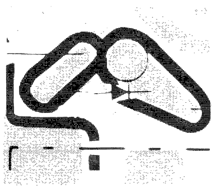
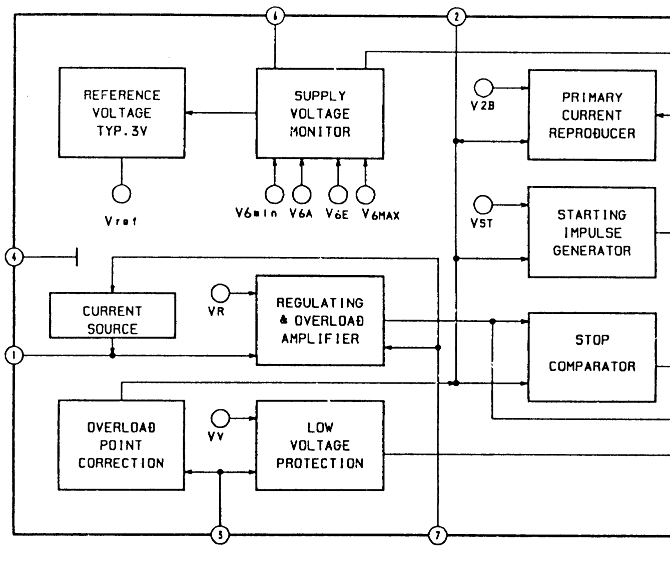
CN0525
CN0504
CN0505
CN0524
CN0519



NOTE:
The circuit indicated as left
600 Vp-p. Care must be paid t
inspection or repairing.

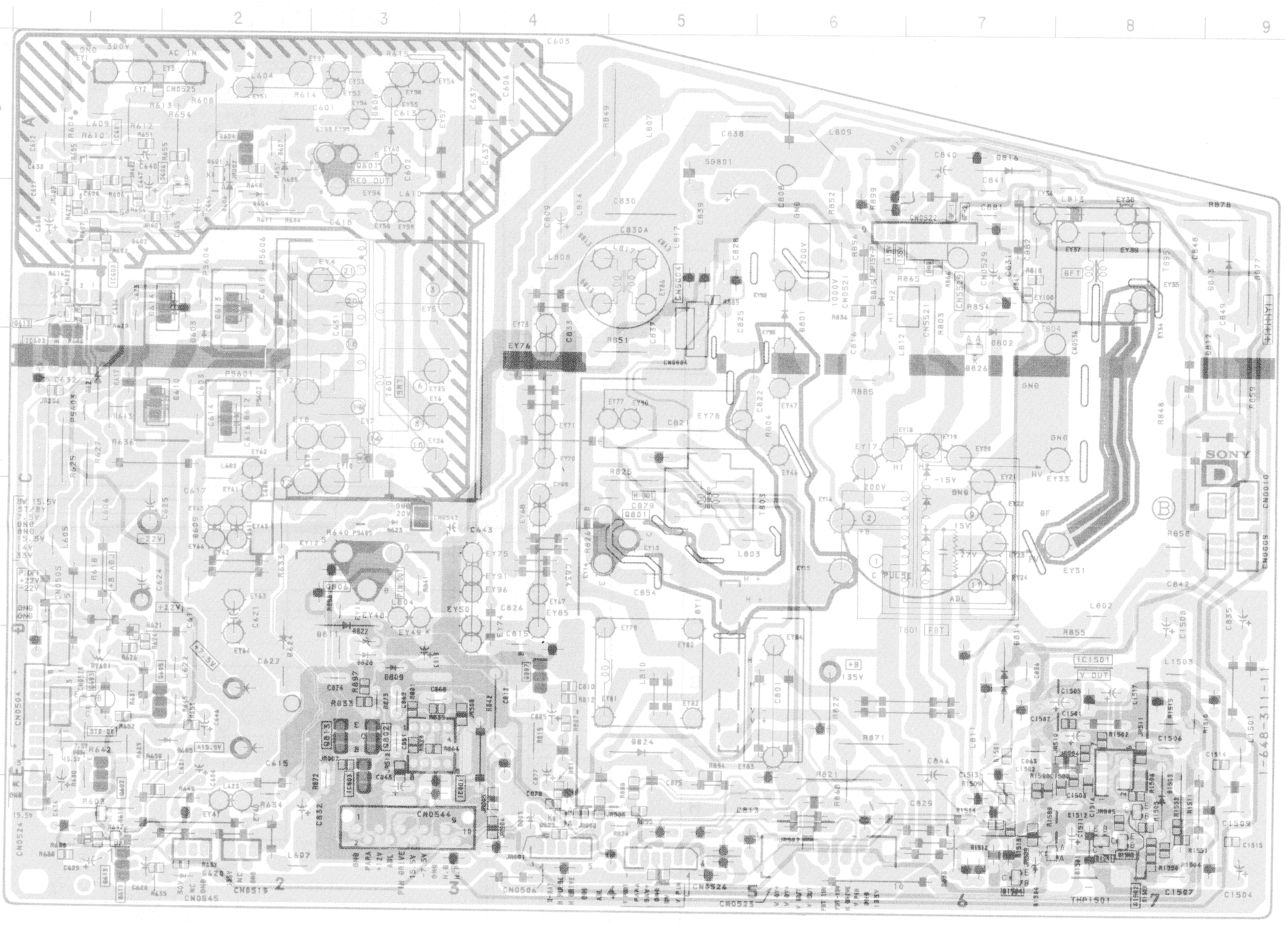
D BOARD IC601 TDA4605-3


REFERENCE VOLTAGE TYP. 3V
Vref
SUPPLY VOLTAGE MONITOR
V6min V6A V6E V6MAX
V2B
PRIMARY CURRENT REPRODUCER
VST
STARTING IMPULSE GENERATOR
CURRENT SOURCE
VR
REGULATING & OVERLOAD AMPLIFIER
STOP COMPARATOR
OVERLOAD POINT CORRECTION
VV
LOW VOLTAGE PROTECTION

Note :

- ▒ : Pattern from the side which enables seeing.
- ▒ : Pattern of the rear side.

– D BOARD –



1
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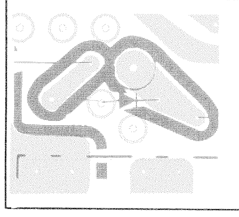
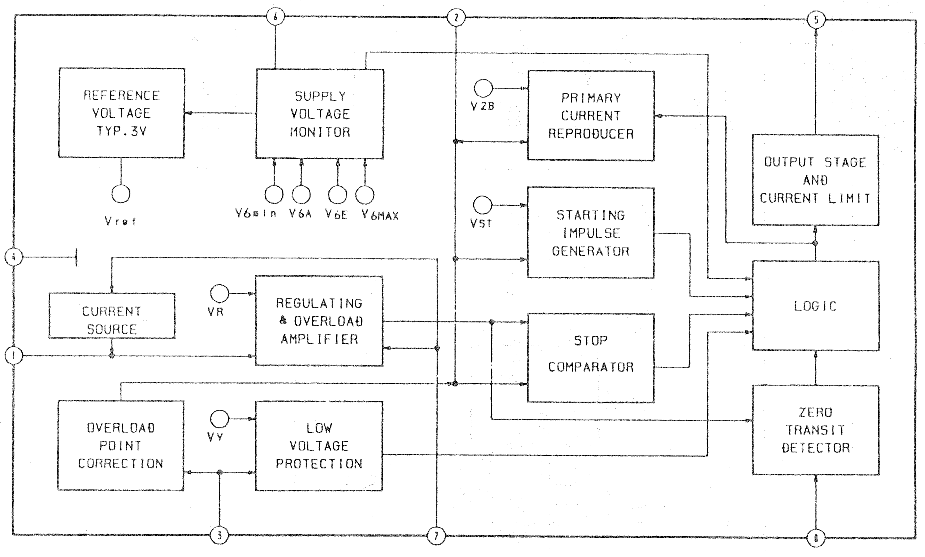
9
A
B
C
D
E
F
AC IN
F2 BRD
CN929
ATING
ASSY
SONY
1-648-311-11



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

D BOARD IC601 TDA4605-3



REFERENCE VOLTAGE TYP.3V
SUPPLY VOLTAGE MONITOR
PRIMARY CURRENT REPRODUCER
OUTPUT STAGE AND CURRENT LIMIT
STARTING IMPULSE GENERATOR
CURRENT SOURCE
REGULATING & OVERLOAD AMPLIFIER
LOGIC
STOP COMPARATOR
OVERLOAD POINT CORRECTION
LOW VOLTAGE PROTECTION
ZERO TRANSIT DETECTOR
Vref
V6min
V6A
V6E
V6MAX
V2B
VST
VR
VV
1
2
3
4
5
6
7
8
9

IC

IC601	A – 1
IC602	C – 1
IC603	B – 1
IC801	E – 3
IC803	F – 3
IC1501	E – 8

TRANSISTOR

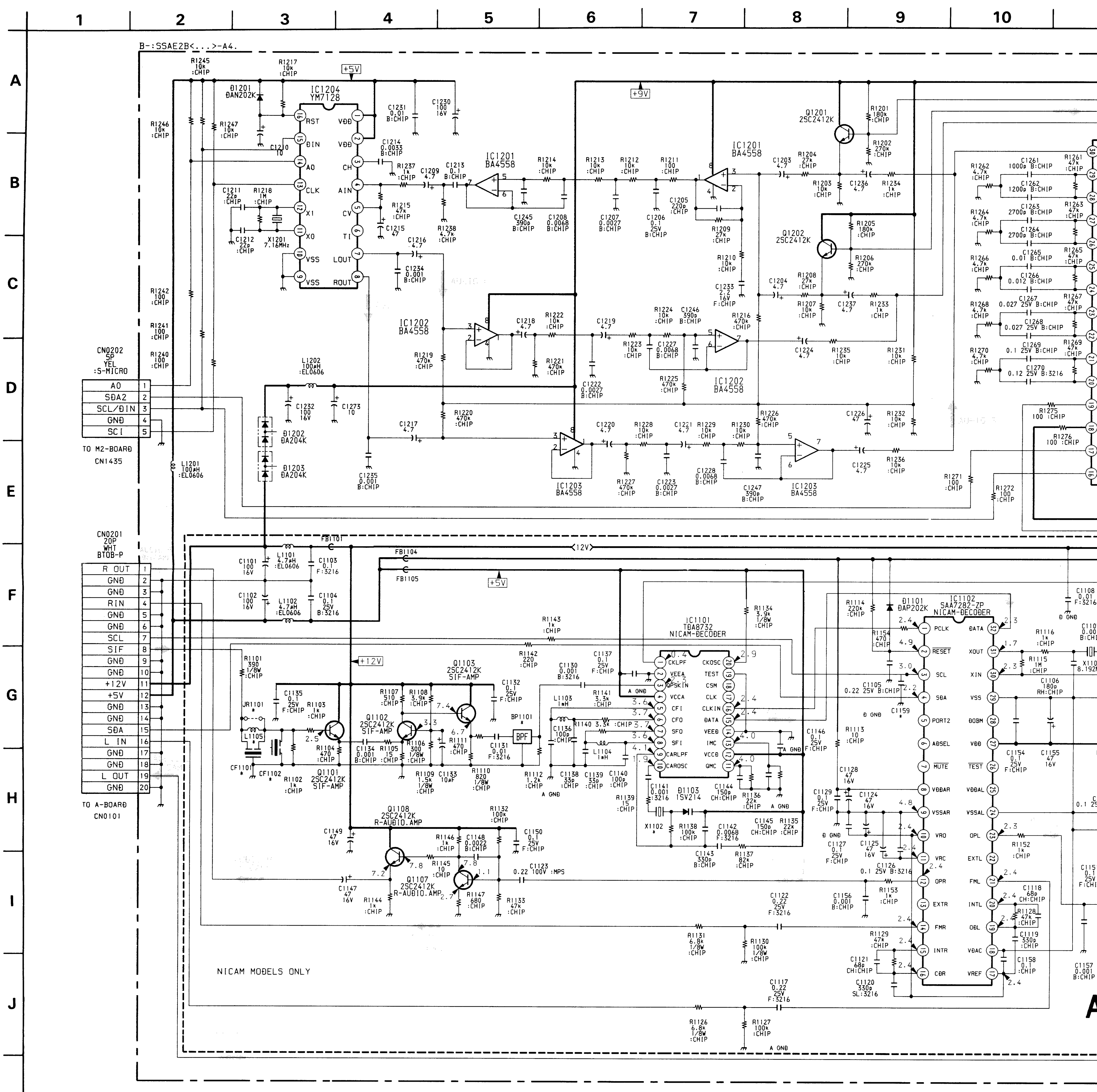
Q601	A – 3
Q602	F – 1
Q603	E – 1
Q604	A – 2
Q605	E – 2
Q606	B – 2
Q611	F – 1
Q612	F – 1
Q613	B – 1
Q801	D – 5
Q802	E – 3
Q806	D – 3
Q807	E – 4
Q813	E – 3
Q1501	F – 8
Q1502	F – 8
Q1503	F – 8
Q1504	F – 7

DIODE

D601	A – 2
D602	B – 1
D604	B – 2
D605	E – 2
D606	B – 2
D607	A – 2
D608	A – 3
D610	C – 2
D611	D – 2
D612	C – 2
D613	B – 2
D614	B – 2
D616	B – 1
D619	F – 1
D620	F – 2
D621	C – 1
D624	E – 2
D801	B – 6
D802	B – 7
D803	F – 4
D809	E – 3
D811	D – 3
D812	C – 9
D813	B – 9
D814	E – 7
D815	B – 6
D816	A – 7
D822	E – 3
D824	E – 5
D825	F – 4
D826	C – 7
D828	E – 3
D1501	F – 8
D1503	F – 8
D1504	F – 7

VARIABLE RESISTOR

RV601	E – 1


1
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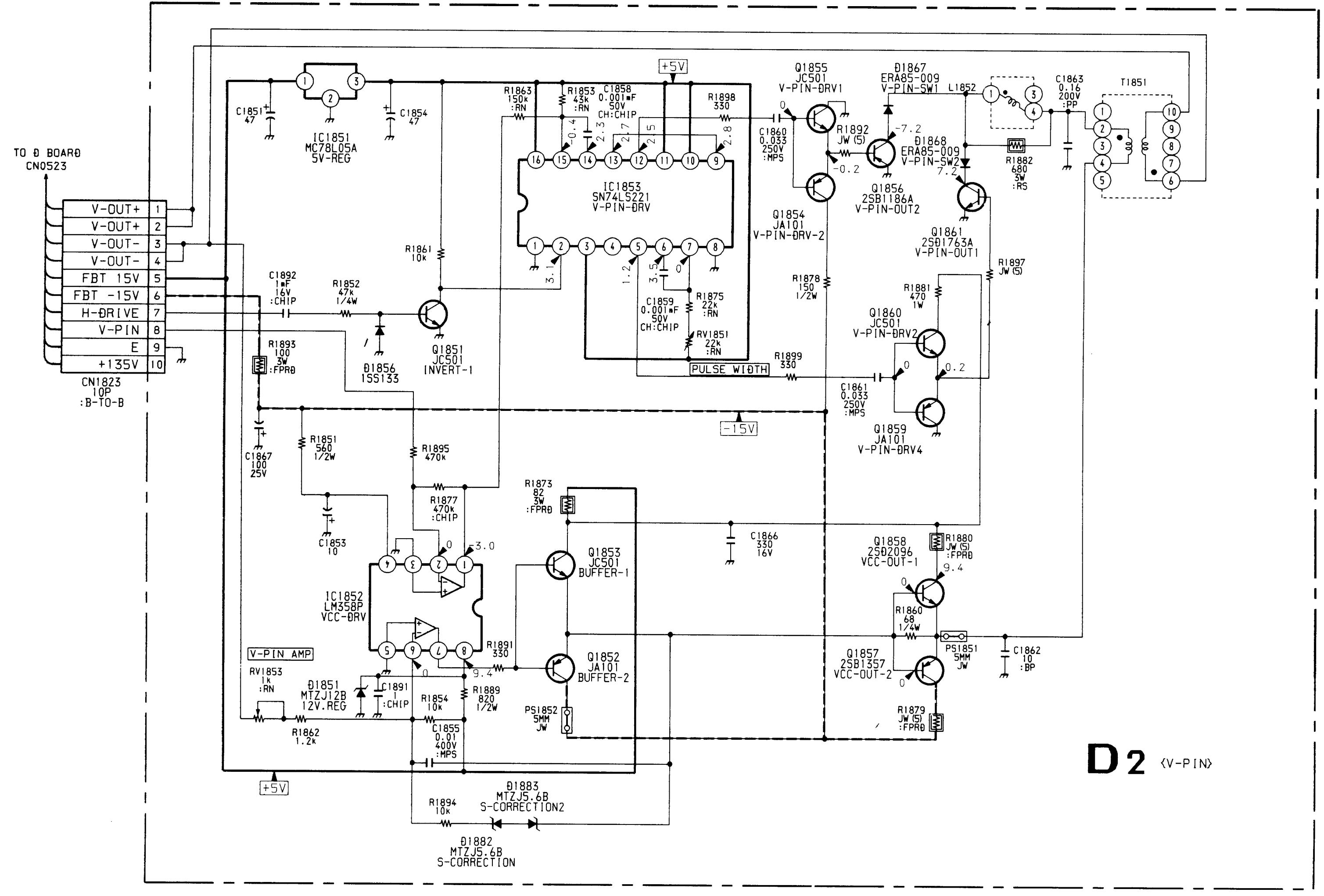
10
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
B-:SSAE2B<...>-A4.
+5V
+9V
IC1204
YM7128
IC1201
BA4558
IC1202
BA4558
IC1203
BA4558
Q1201
2SC2412K
Q1202
2SC2412K
D1201
DAN202K
X1201
7.16MHz
CN0202
5P
YEL
:S-MICRO
A0
SDA2
SCL/DIN
GND
SCI
TO M2-BOARD
CN1435
L1201
100μH
:EL0606
L1202
100μH
:EL0606
D1202
DA204K
D1203
DA204K
CN0201
20P
WHT
BTOB-P
R OUT
GND
R IN
SCL
SIF
+12V
+5V
SDA
L IN
L OUT
TO A-BOARD
CN0101
FB1101
FB1104
FB1105
12V
+12V
Q1101
2SC2412K
SIF-AMP
Q1102
2SC2412K
SIF-AMP
Q1103
2SC2412K
SIF-AMP
BP1101
BPF
IC1101
TDA8732
NICAM-DECODER
D1103
1SV214
X1102
Q1107
2SC2412K
R-AUDIO.AMP
Q1108
2SC2412K
R-AUDIO.AMP
D1101
DAP202K
IC1102
SAA7282-ZP
NICAM-DECODER
A GND
NICAM MODELS ONLY

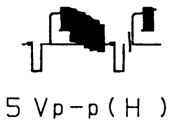

B-:SSAE2A<34S>-D2.
TO D BOARD
CN0523
V-OUT+
V-OUT-
FBT 15V
FBT -15V
H-DRIVE
V-PIN
E
+135V
CN1823
10P
:B-TO-B
IC1851
MC78L05A
5V-REG
IC1853
SN74LS221
V-PIN-DRV
+5V
PULSE WIDTH
-15V
Q1851
JC501
INVERT-1
D1856
1SS133
IC1852
LM358P
VCC-DRV
V-PIN AMP
D1851
MTZJ12B
12V.REG
Q1853
JC501
BUFFER-1
Q1852
JA101
BUFFER-2
D1883
MTZJ5.6B
S-CORRECTION2
D1882
MTZJ5.6B
S-CORRECTION
Q1855
JC501
V-PIN-DRV1
Q1854
JA101
V-PIN-DRV-2
D1867
ERA85-009
V-PIN-SW1
D1868
ERA85-009
V-PIN-SW2
Q1856
2SB1186A
V-PIN-OUT2
Q1861
2SD1763A
V-PIN-OUT1
Q1860
JC501
V-PIN-DRV3
Q1859
JA101
V-PIN-DRV4
Q1858
2SD2096
VCC-OUT-1
Q1857
2SB1357
VCC-OUT-2
T1851
PS1851
PS1852
+5V
D2 (V-PIN)

A4 BOARD * MARK

Ref	S3433
BP1101	5.850M
C1159	-
CF1101	-
CF1102	5.5MH
JR1101	0 : CH
L1105	-
X1102	11.700M

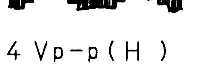
WAVEFORMS B BO

①

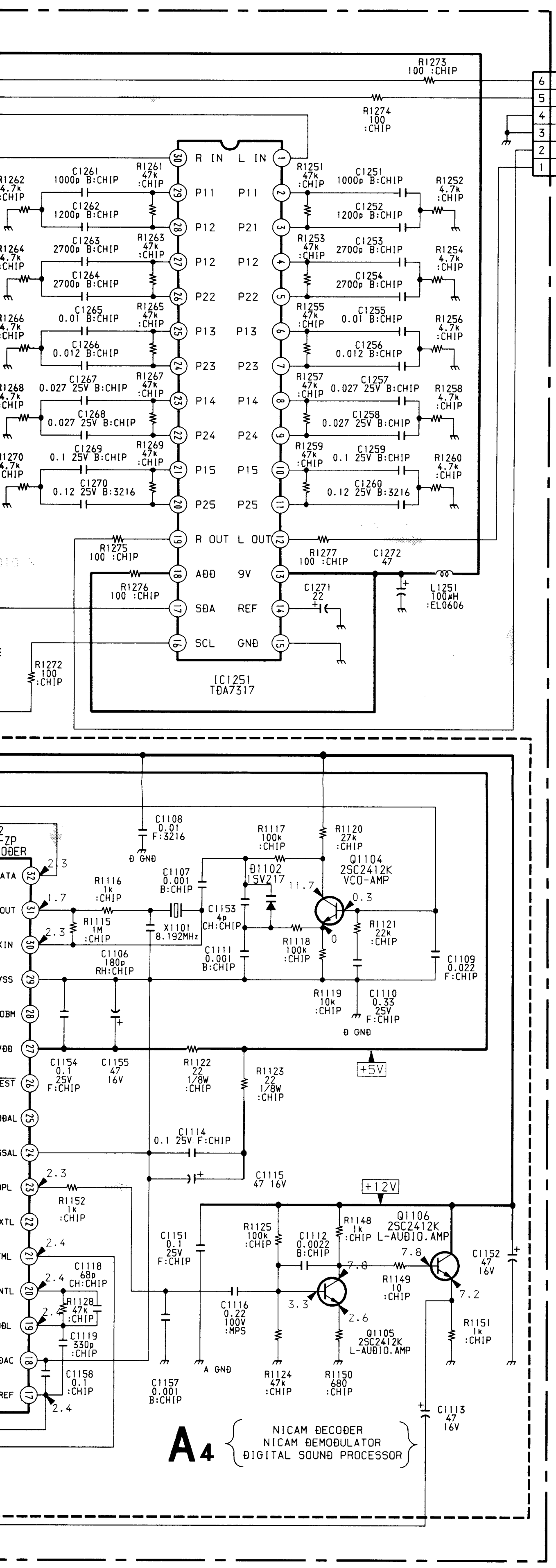


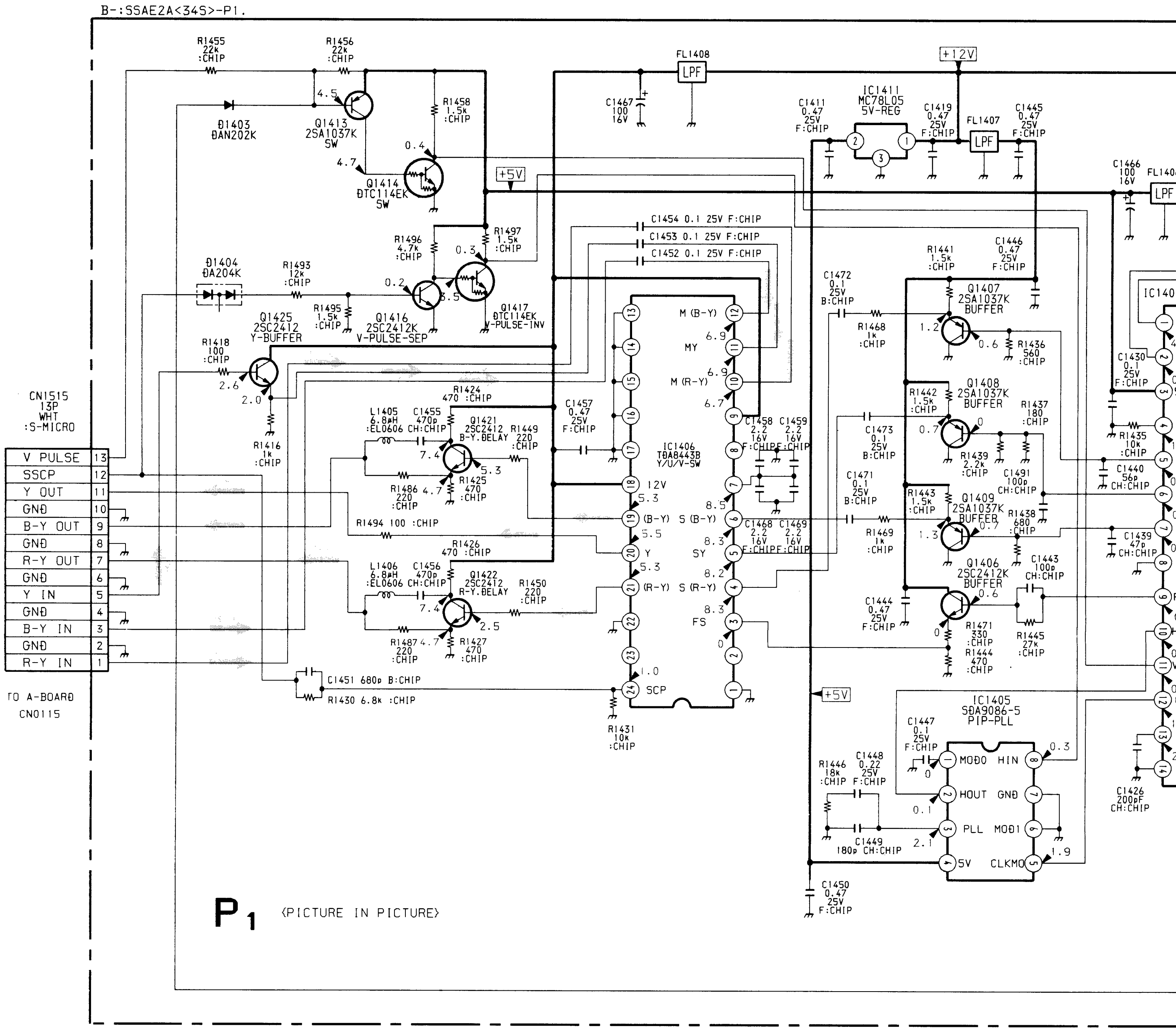
1.5 Vp-p(H)

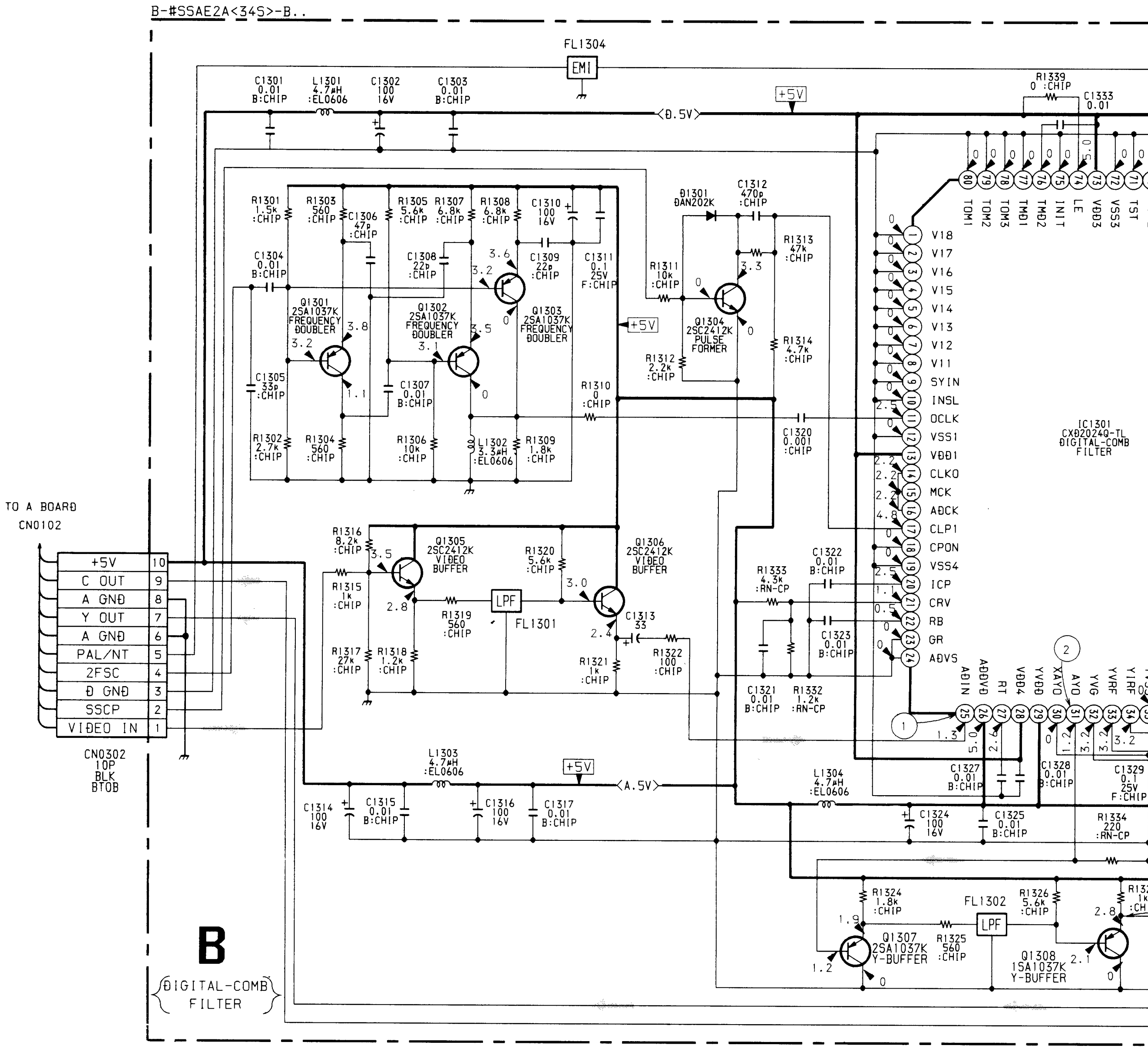
④



1.4 Vp-p(H)


CN0203 6P WHT :S-MICRO
R IN
L IN
GND
GND
R OUT
L OUT
TO A-BOARD CN0127
IC1251 TDA7317
R IN L IN
P11 P11
P12 P21
P22 P22
P13 P13
P23 P23
P14 P14
P24 P24
P15 P15
P25 P25
R OUT L OUT
ADD 9V
SDA REF
SCL GND
Q1104 2SC2412K VCO-AMP
D1102 15V217
X1101 8.192MHz
Q1106 2SC2412K L-AUDIO.AMP
Q1105 2SC2412K L-AUDIO.AMP
+5V
+12V
D GND
A GND
A4
NICAM DECODER
NICAM DEMODULATOR
DIGITAL SOUND PROCESSOR

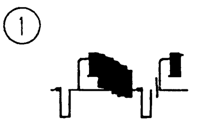
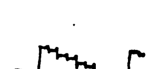
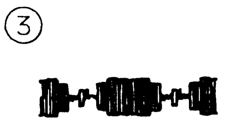
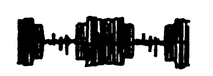
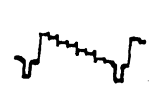

B-:SSAE2A<34S>-P1.
CN1515 13P WHT :S-MICRO
V PULSE 13
SSCP 12
Y OUT 11
GND 10
B-Y OUT 9
GND 8
R-Y OUT 7
GND 6
Y IN 5
GND 4
B-Y IN 3
GND 2
R-Y IN 1
TO A-BOARD CN0115
D1403 DAN202K
D1404 DA204K
Q1413 2SA1037K SW
Q1414 DTC114EK SW
Q1425 2SC2412 Y-BUFFER
Q1416 2SC2412K V-PULSE-SEP
Q1417 DTC114EK V-PULSE-INV
Q1421 2SC2412 B-Y.BELAY
Q1422 2SC2412 R-Y.BELAY
IC1406 TDA8443B Y/U/V-SW
FL1408 LPF
IC1411 MC78L05 5V-REG
FL1407 LPF
Q1407 2SA1037K BUFFER
Q1408 2SA1037K BUFFER
Q1409 2SA1037K BUFFER
Q1406 2SC2412K BUFFER
IC1405 SDA9086-5 PIP-PLL
MODO HIN
HOUT GND
PLL MOD1
5V CLKMO
+12V
+5V
P1 (PICTURE IN PICTURE)

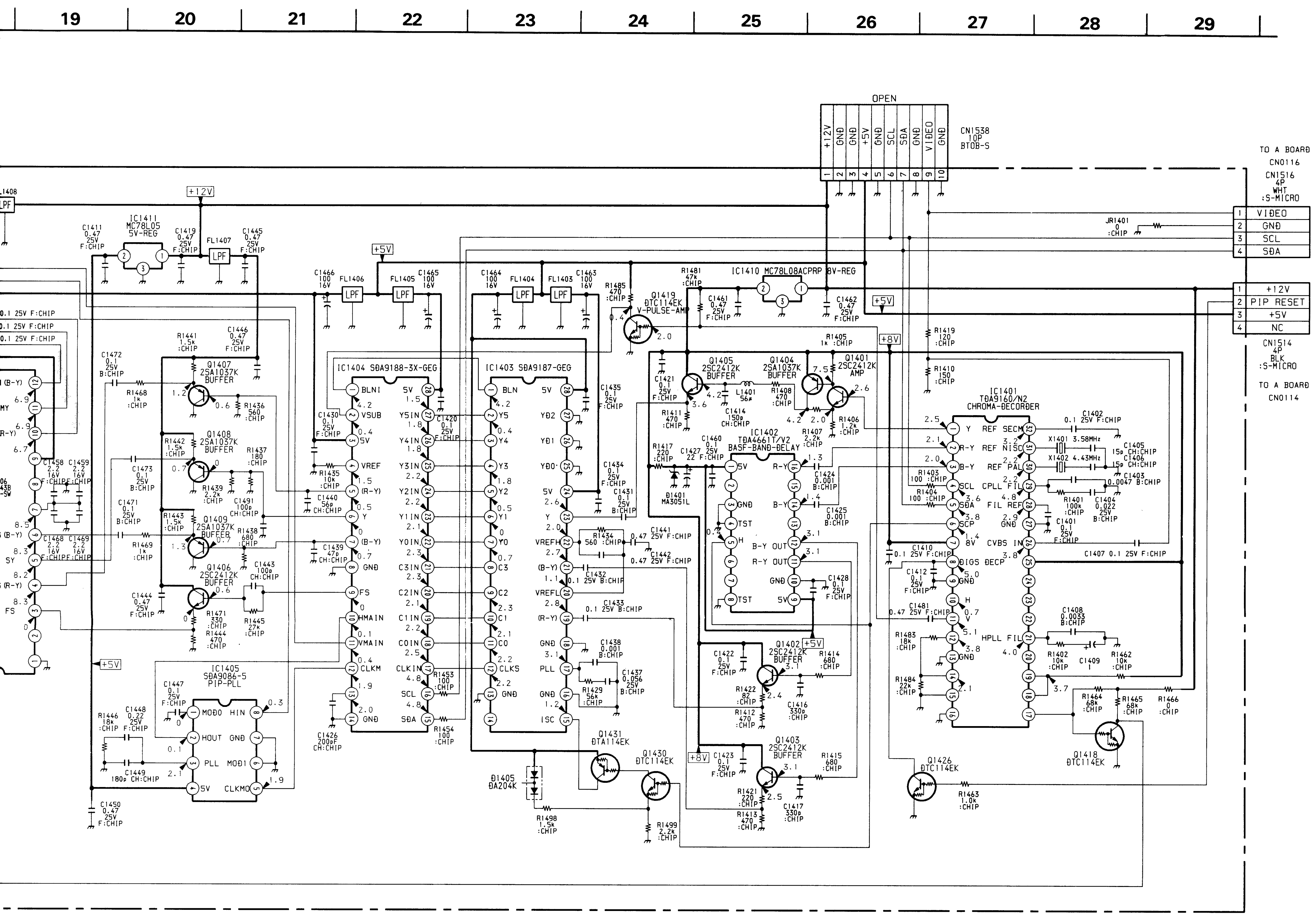

B-#SSAE2A<34S>-B..
FL1304 EMI
+5V
(D.5V)
(A.5V)
Q1301 2SA1037K FREQUENCY DOUBLER
Q1302 2SA1037K FREQUENCY DOUBLER
Q1303 2SA1037K FREQUENCY DOUBLER
D1301 DAN202K
Q1304 2SC2412K PULSE FORMER
Q1305 2SC2412K VIDEO BUFFER
Q1306 2SA1037K VIDEO BUFFER
FL1301 LPF
TO A BOARD CN0102
+5V 10
C OUT 9
A GND 8
Y OUT 7
A GND 6
PAL/NT 5
2FSC 4
D GND 3
SSCP 2
VIDEO IN 1
CN0302 10P BLK BTOB
IC1301 CXD2024Q-TL DIGITAL-COMB FILTER
V18 V17 V16 V15 V14 V13 V12 V11 SYIN INSL OCLK VSS1 VDD1 CLKO MCK ADCK CLP1 CPON VSS4 ICP CRV RB GR ADVS
TDM1 TDM2 TDM3 TMD1 TMD2 INIT LE VDD3 VSS3 TST
ADIN ADVD RT VDD4 XAYO AYO YVG YIRF
FL1302 LPF
Q1307 2SA1037K Y-BUFFER
Q1308 1SA1037K Y-BUFFER
B
DIGITAL-COMB FILTER

A4 BOARD * MARK

Ref	S3433E	S3432U
BP1101	5.850MHz	6.552MHz
C1159	-	47PF
CF1101	-	6.0MHz
CF1102	5.5MHz	-
JR1101	0 : CHIP	-
L1105	-	15UH
X1102	11.700MHz	13.104MHz

WAVEFORMS B BOARD

①  1.5 Vp-p(H)	②  2.0 Vp-p (H)	③  1.0 Vp-p(H)
④  1.4 Vp-p(H)	⑤  1.7 Vp-p (H)	


19
20
21
22
23
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25
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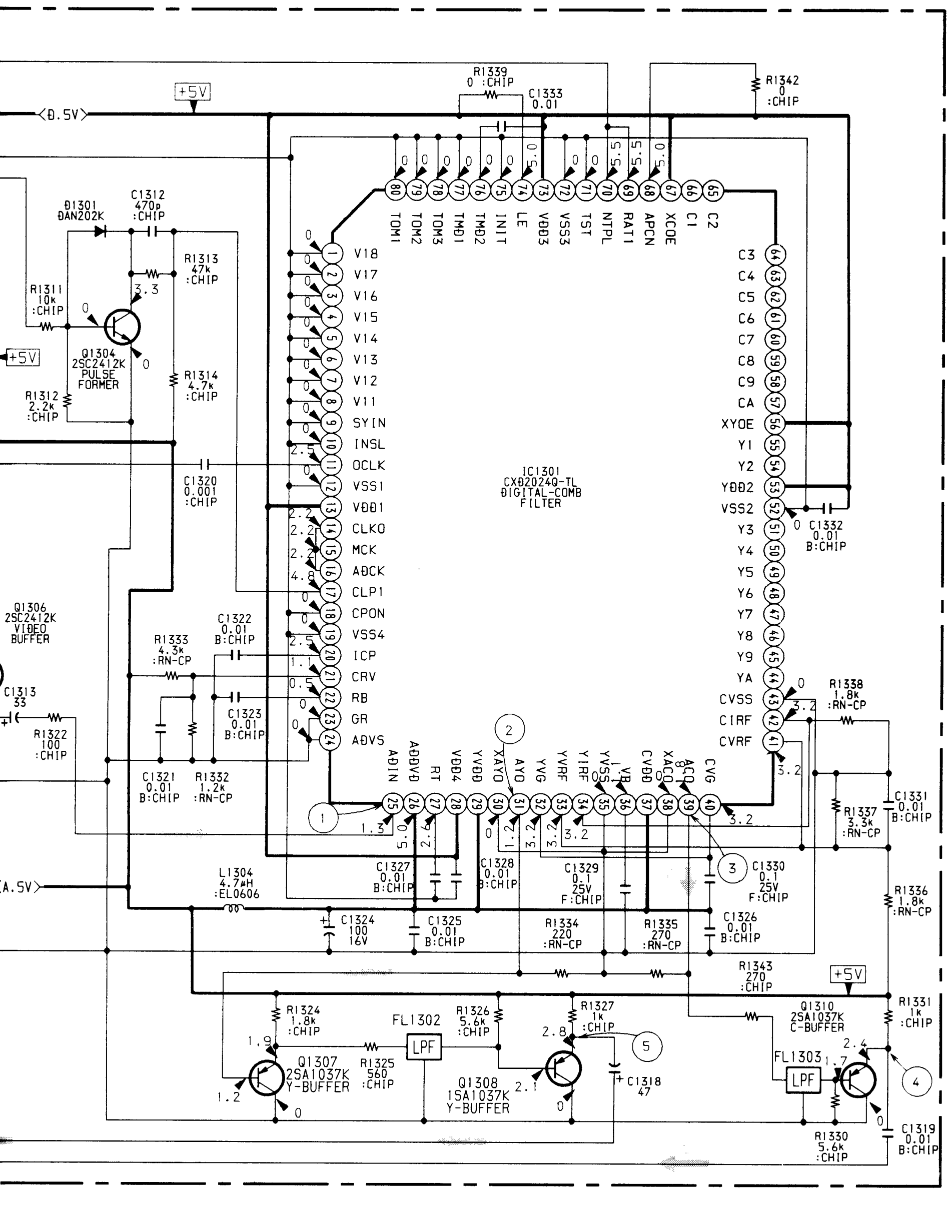
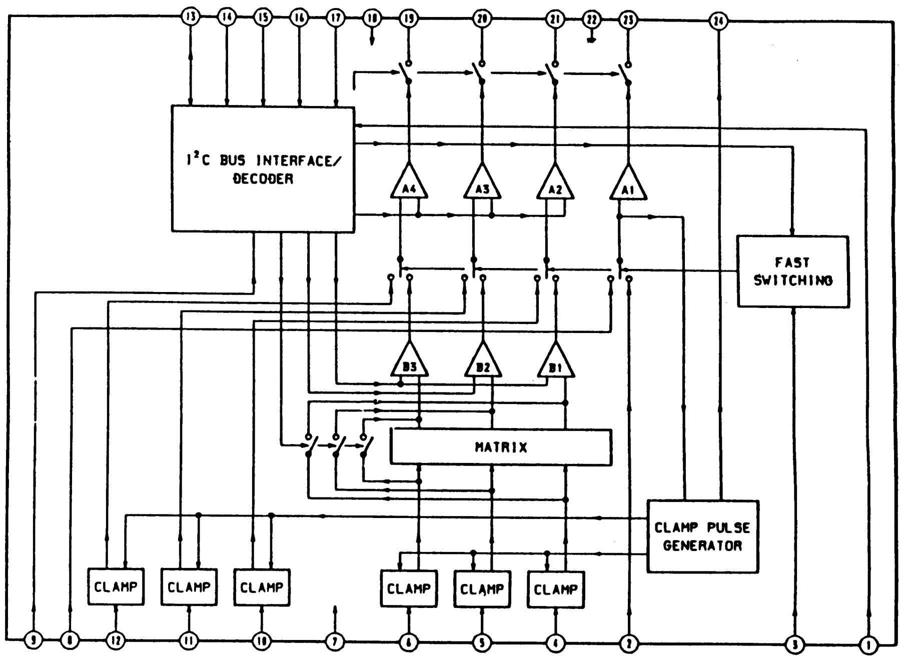
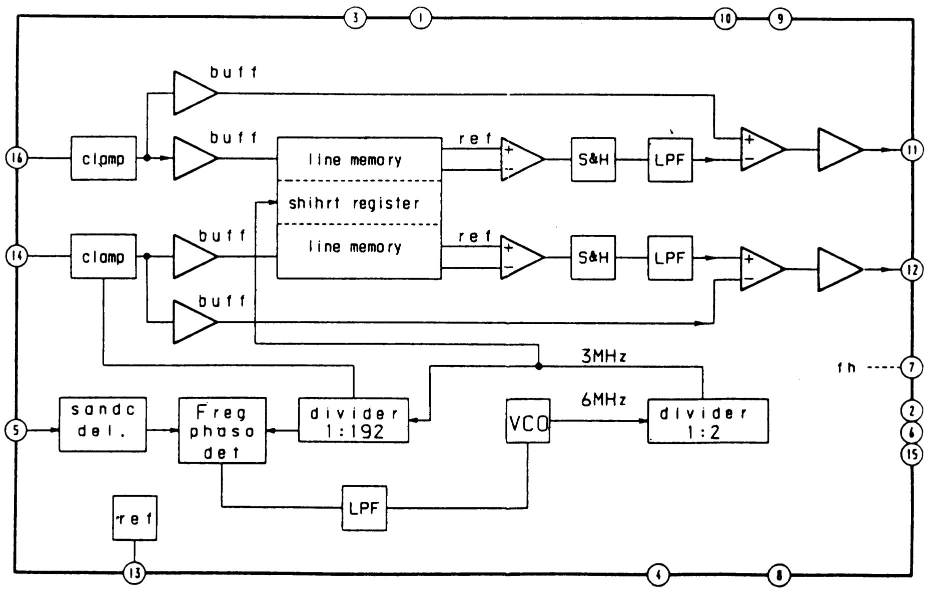
27
28
29
OPEN
CN1538 10P BTOB-S
+12V GND GND +5V GND SCL SDA GND VIDEO GND
TO A BOARD CN0116
CN1516 4P WHT :S-MICRO
VIDEO
GND
SCL
SDA
+12V
PIP RESET
+5V
NC
CN1514 4P BLK :S-MICRO
TO A BOARD CN0114
IC1411 MC78L05 5V-REG
IC1410 MC78L08ACPRP 8V-REG
IC1404 SDA9188-3X-GEG
IC1403 SDA9187-GEG
IC1405 SDA9086-5 PIP-PLL
IC1401 TDA9160/N2 CHROMA-DECORDER
IC1402 TDA4661T/V2 BASF-BAND-DELAY
Q1407 2SA1037K BUFFER
Q1408 2SA1037K BUFFER
Q1409 2SA1037K BUFFER
Q1406 2SC2412K BUFFER
Q1419 DTC114EK V-PULSE-AMP
Q1405 2SC2412K BUFFER
Q1404 2SA1037K BUFFER
Q1401 2SC2412K AMP
Q1402 2SC2412K BUFFER
Q1403 2SC2412K BUFFER
Q1431 DTA114EK
Q1430 DTC114EK
Q1426 DTC114EK
Q1418 DTC114EK
D1405 DA204K
D1401 MA3051L
X1401 3.58MHz
X1402 4.43MHz
FL1404
FL1405
FL1406
FL1407
+12V
+5V
+8V


IC1301 CXD2024Q-TL DIGITAL-COMB FILTER
Q1304 2SC2412K PULSE FORMER
Q1306 2SC2412K VIDEO BUFFER
Q1307 2SA1037K Y-BUFFER
Q1308 1SA1037K Y-BUFFER
Q1310 2SA1037K C-BUFFER
D1301 DAN202K
FL1302
FL1303
L1304 4.7μH :EL0606
+5V
(D.5V)
(A.5V)

P1 BOARD IC1406 TDA8443B

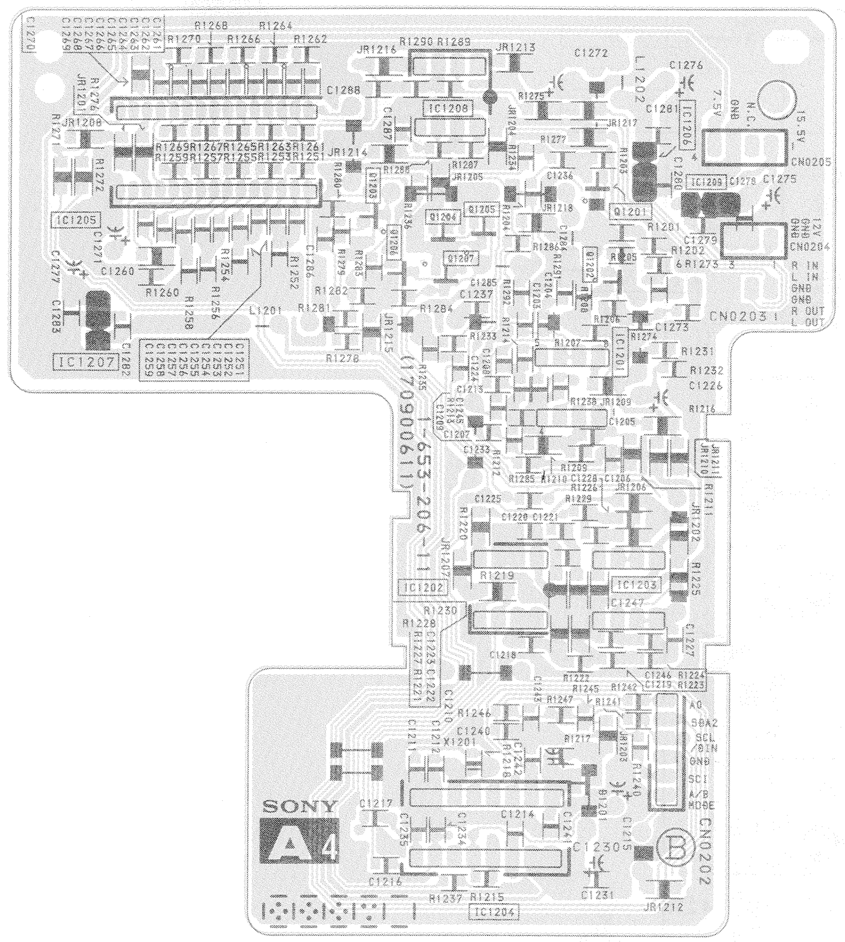

I²C BUS INTERFACE/ DECODER
A4
A3
A2
A1
FAST SWITCHING
B3
B2
B1
MATRIX
CLAMP PULSE GENERATOR
CLAMP
CLAMP
CLAMP
CLAMP
CLAMP
CLAMP

P1 BOARD IC1402 TDA466IT/V2

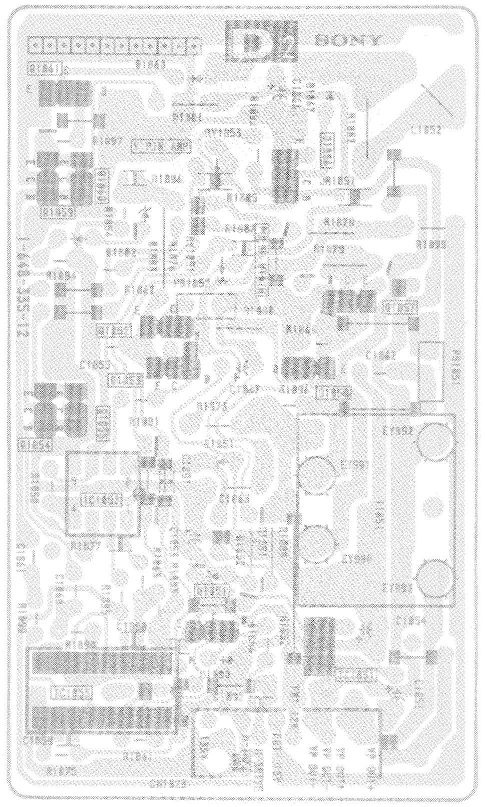

buff
buff
clmp
line memory
shihrt register
line memory
ref
ref
S&H
LPF
S&H
LPF
clamp
buff
buff
3MHz
6MHz
fh
sandc del.
Freq phaso det
divider 1:192
VCO
divider 1:2
LPF
ref

A4 NICAM DECODER
NICAM DEMODULATOR
DIGITAL SOUND PROCESSOR **D2** V-PIN **P1** PICTURE IN PICTURE **B** DIGITAL – COMB FILTER

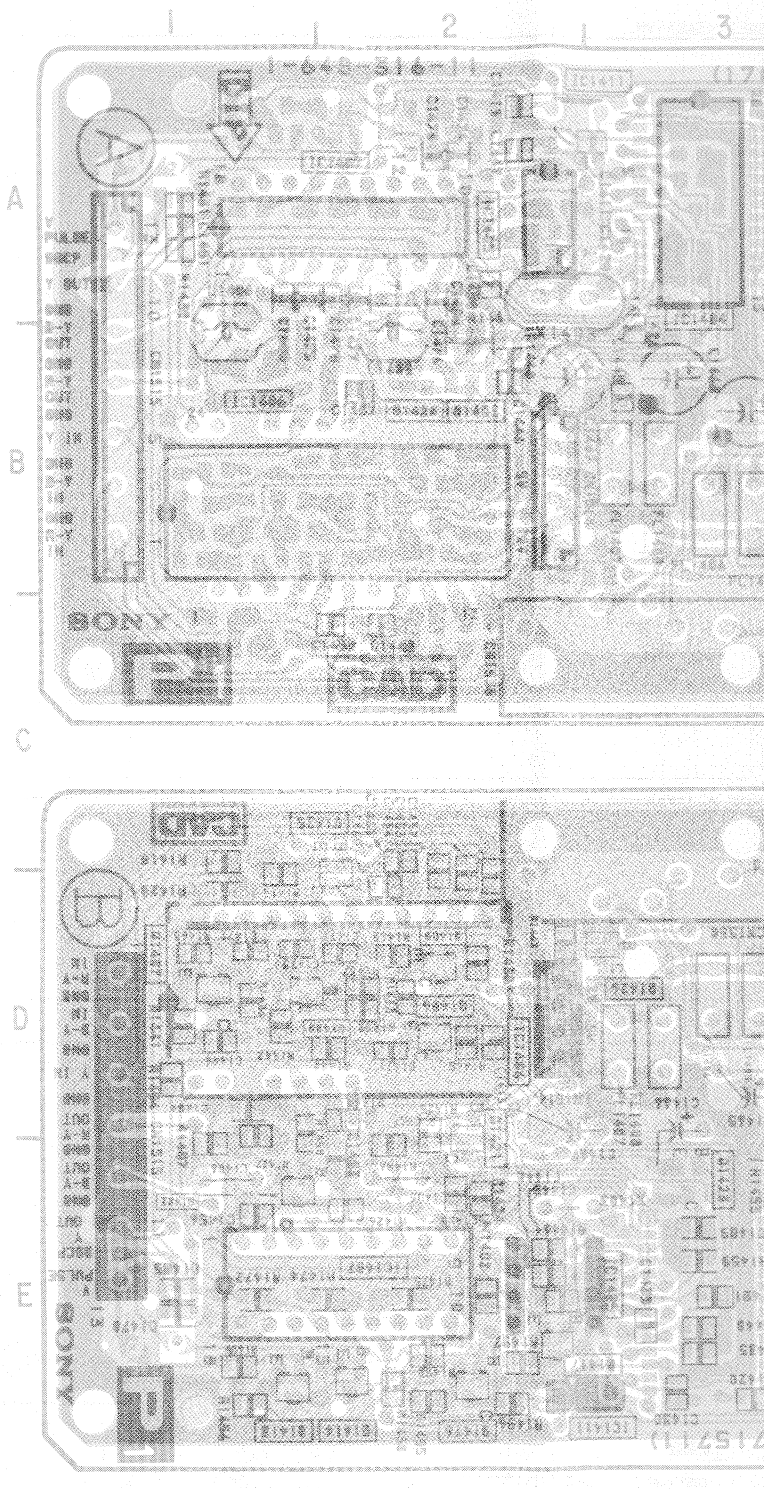
– A4 BOARD –


CN0205
CN0204
CN0203
CN0202
IC1205
IC1207
IC1202
IC1203
IC1204
SONY
A4
1-653-206-11
B

– D2 BOARD –

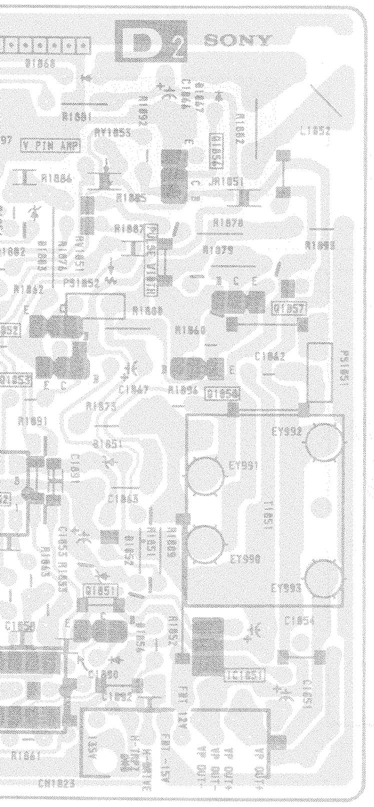

D2
SONY
V PIN AMP
1-648-335-12
EY991
EY992
EY993
CN1825

– P1 BOARD –

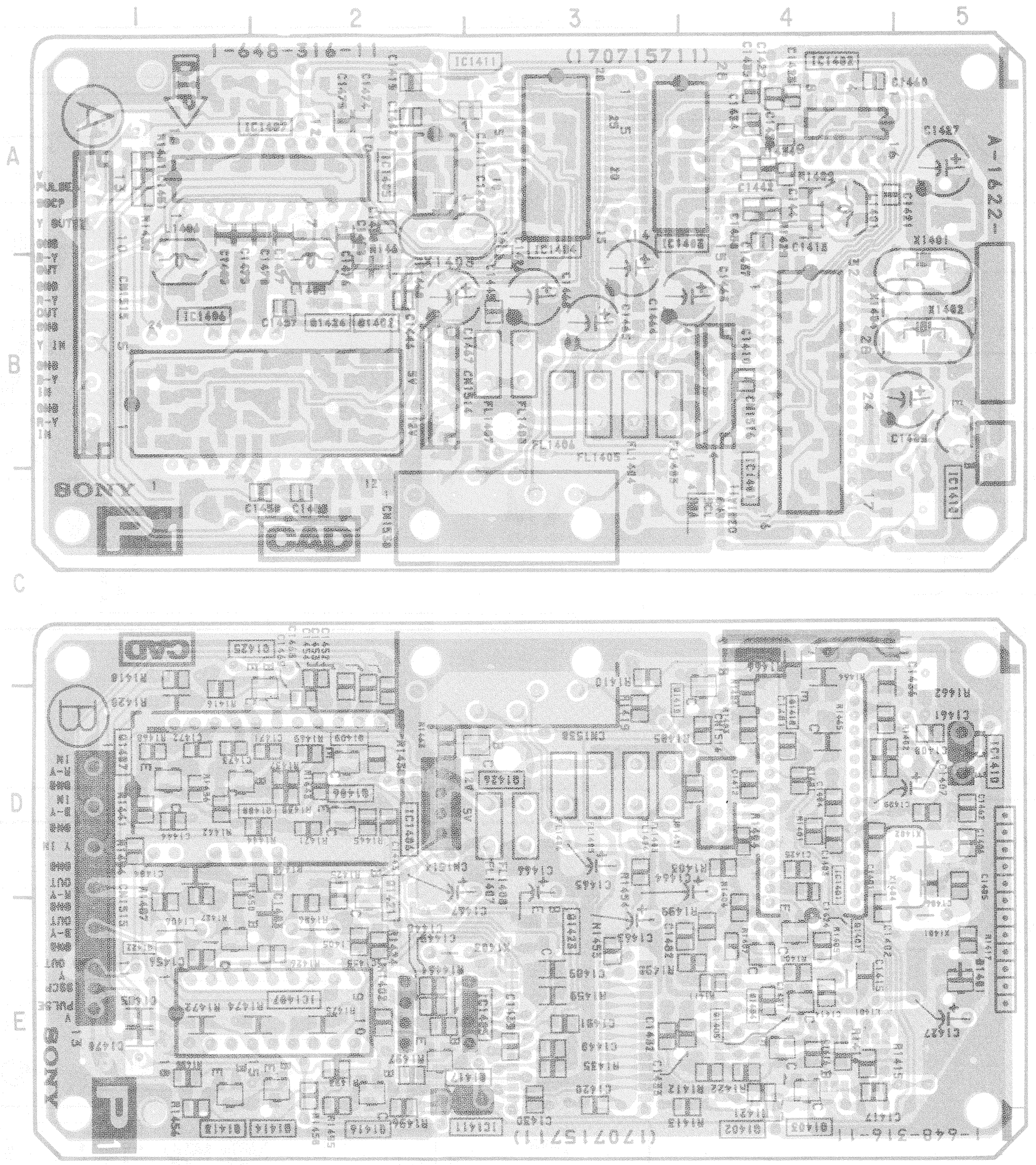

1
2
3
A
B
C
D
E
1-648-316-11
PULSE
SSCP
Y OUT
Y IN
SONY
P1
CAD

MB

OARD –



– P1 BOARD –


1
2
3
4
5
A
B
C
D
E
1-648-316-11
(1707157 11)
A-1622-
SONY
CAD
P1

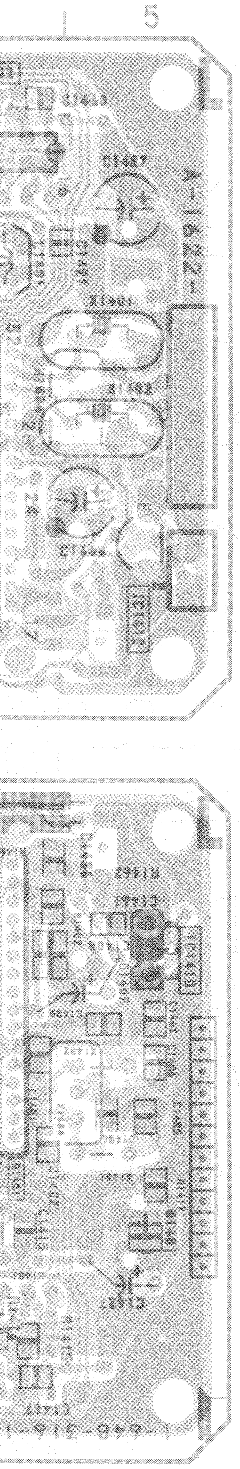
IC	
IC1401	B – 4, D – 4
IC1402	A – 4
IC1403	A – 3
IC1404	A – 3
IC1405	A – 2, E – 2
IC1406	B – 1, D – 2
IC1410	B – 5, D – 5
IC1411	A – 2, E – 2

TRANSISTOR	
Q1401	E – 4
Q1402	E – 4
Q1403	E – 4
Q1404	E – 4
Q1405	E – 4
Q1406	D – 2
Q1407	D – 1
Q1408	D – 1
Q1409	D – 2
Q1413	E – 1
Q1414	E – 2
Q1416	E – 2
Q1417	E – 2
Q1419	D – 4
Q1421	E – 2
Q1422	E – 1
Q1425	D – 2
Q1426	D – 3

DIODE	
D1401	E – 5

Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.


5
C1487
X1401
X1402
IC1413
A-1622-
R1462
IC1410
C1427
R1415
1-648-316-1

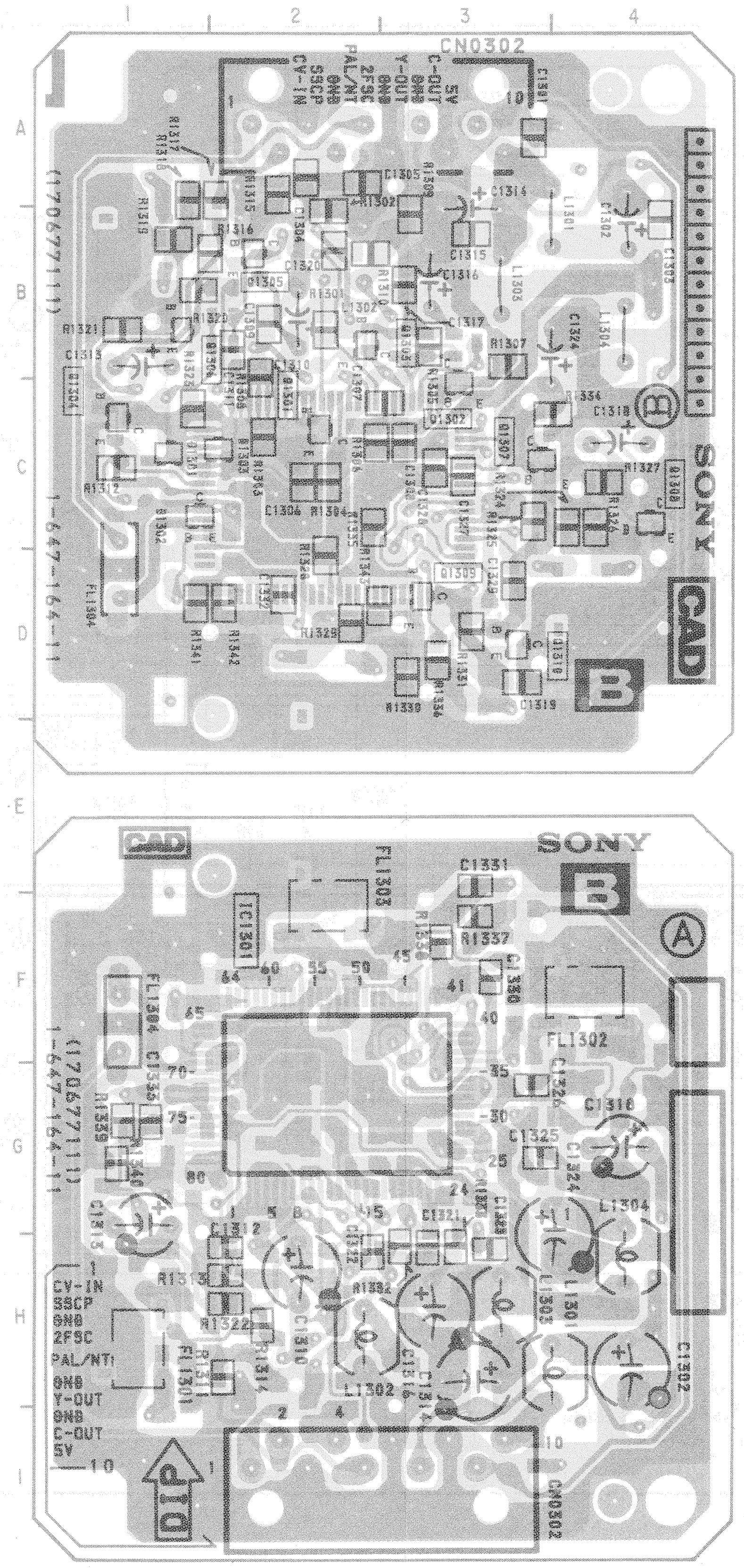
IC	
IC1401	B - 4, D - 4
IC1402	A - 4
IC1403	A - 3
IC1404	A - 3
IC1405	A - 2, E - 2
IC1406	B - 1, D - 2
IC1410	B - 5, D - 5
IC1411	A - 2, E - 2

TRANSISTOR	
Q1401	E - 4
Q1402	E - 4
Q1403	E - 4
Q1404	E - 4
Q1405	E - 4
Q1406	D - 2
Q1407	D - 1
Q1408	D - 1
Q1409	D - 2
Q1413	E - 1
Q1414	E - 2
Q1416	E - 2
Q1417	E - 2
Q1419	D - 4
Q1421	E - 2
Q1422	E - 1
Q1425	D - 2
Q1426	D - 3

DIODE	
D1401	E - 5

which enables seeing.
ide.

– B BOARD –

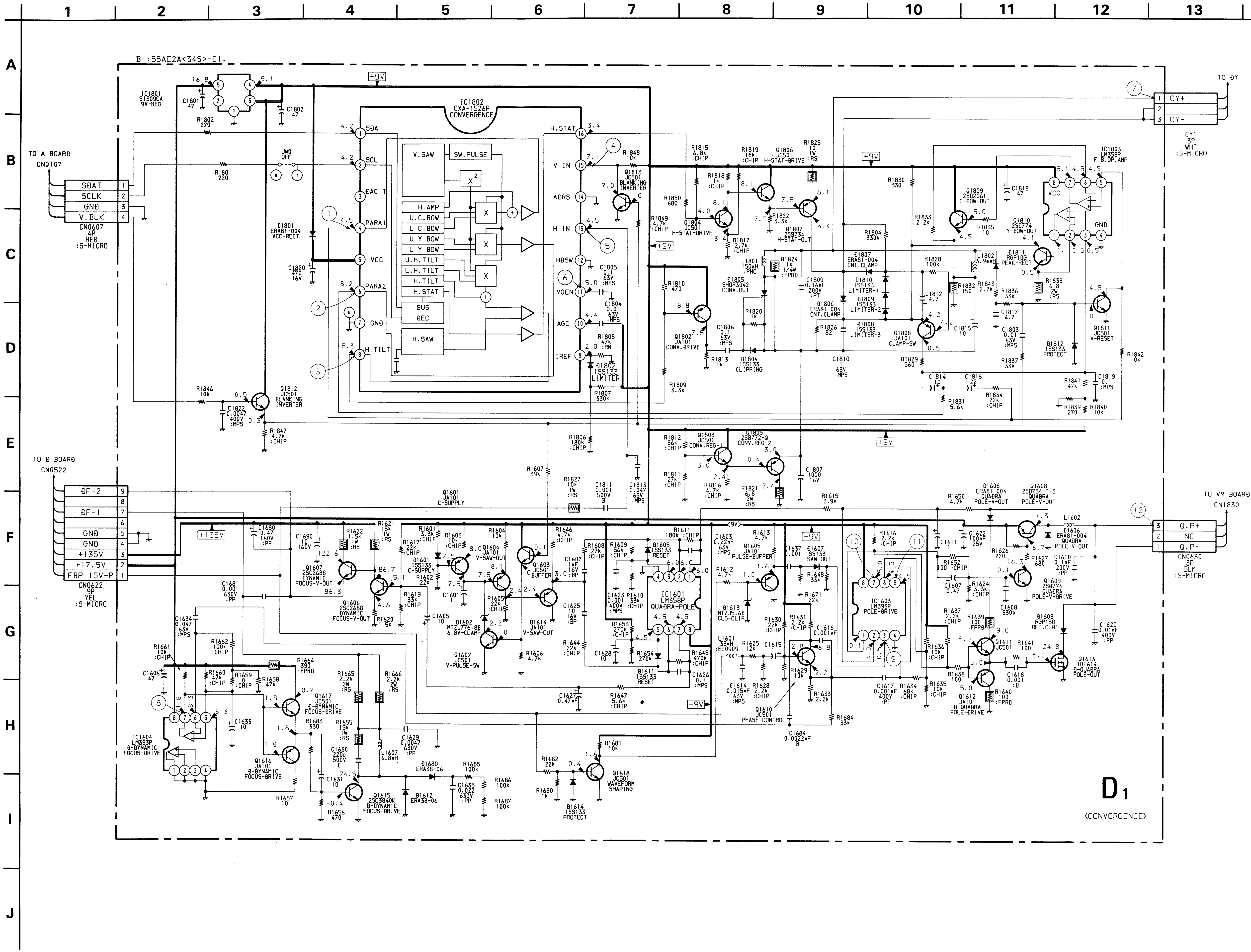

1
2
3
4
A
B
C
D
E
F
G
H
I
CN0302
CV-IN
SSCP
GND
2FSC
PAL/NT
GND
Y-OUT
GND
C-OUT
5V
SONY
CAD
B
A
DIP
IC1301
FL1301
FL1302
FL1303
FL1304
L1301
L1302
L1303
L1304
1-647-164-11
(1706771 11)

IC	
IC1301	G - 2

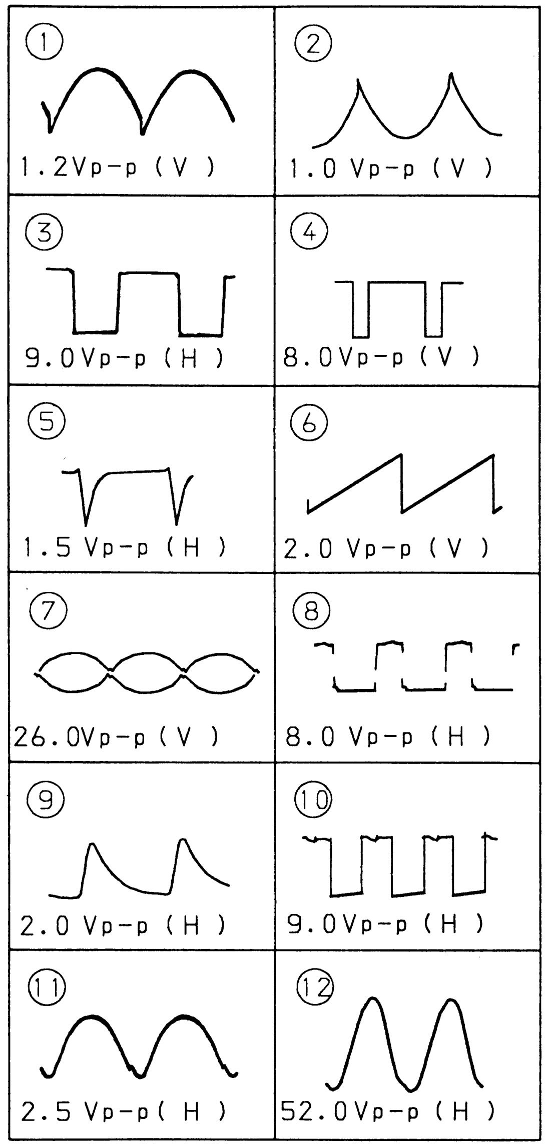
TRANSISTOR	
Q1301	C - 2
Q1302	B - 3
Q1303	B - 2
Q1304	C - 1
Q1305	B - 2
Q1306	B - 1
Q1307	C - 3
Q1308	C - 4
Q1310	D - 3

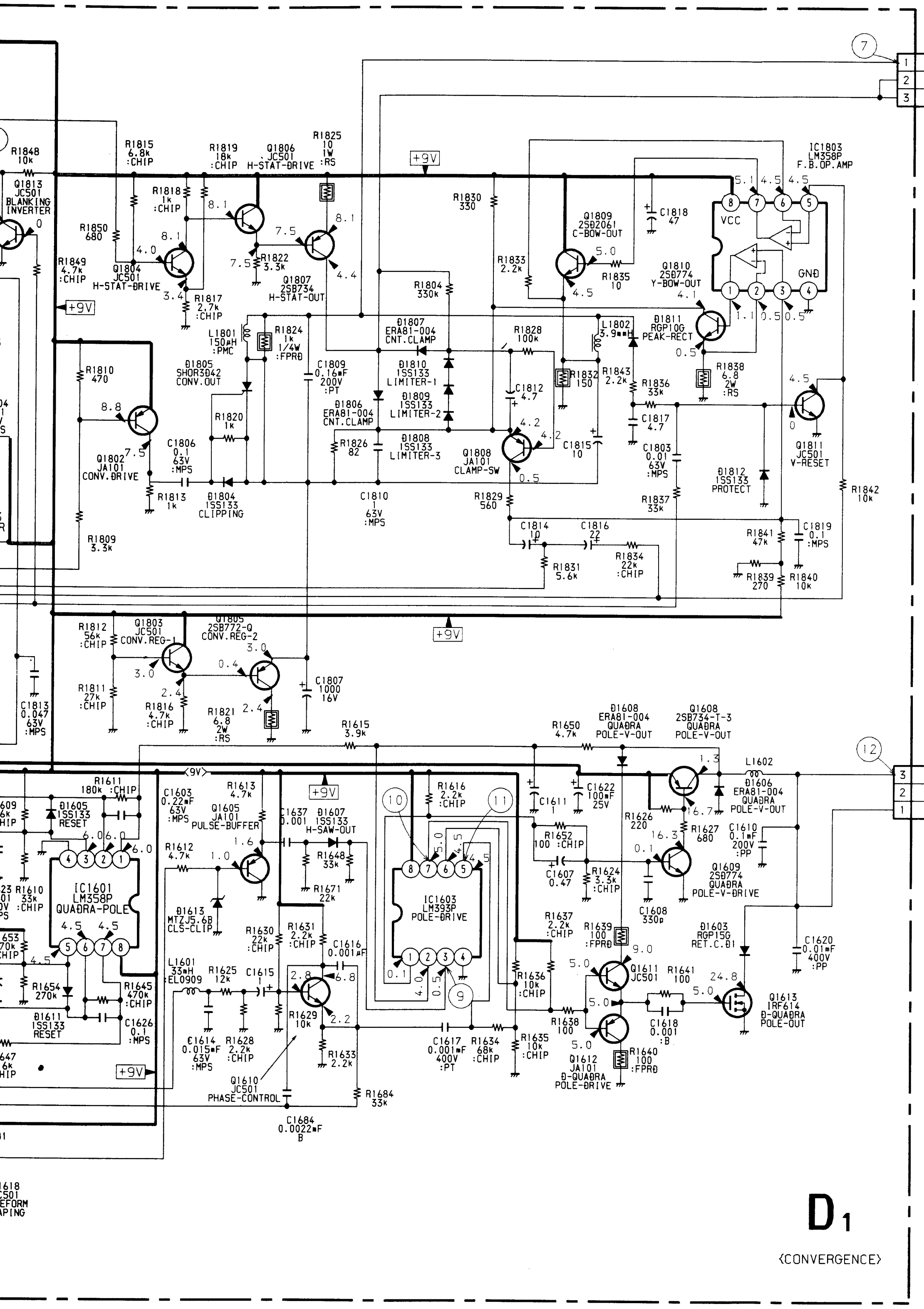
DIODE	
D1301	C - 1

Note :
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

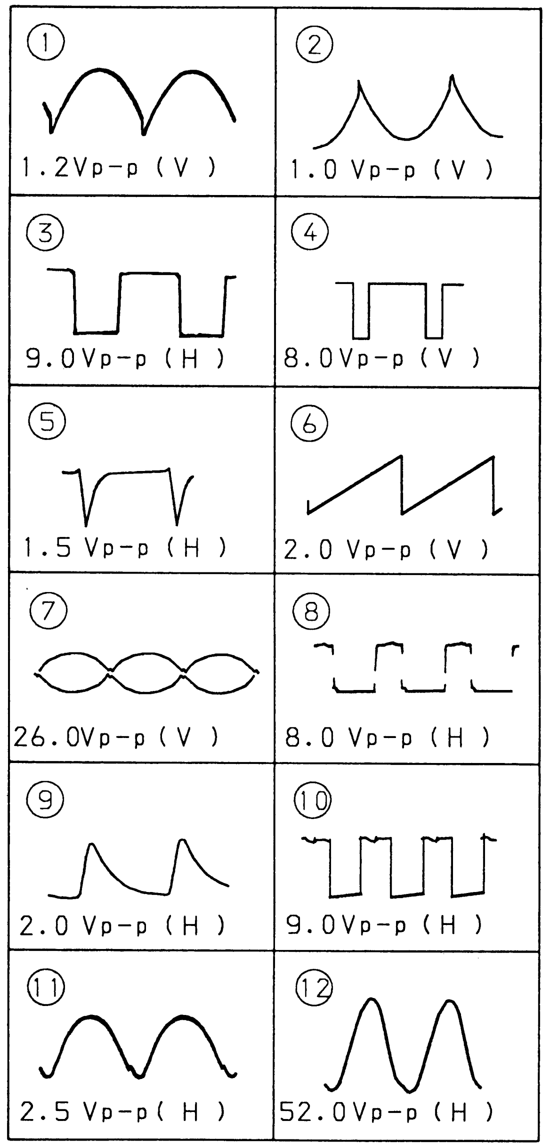

B-:SSAE2A<34S>-D1.
IC1801 S1309CA 9V-REG
IC1802 CXA-1526P CONVERGENCE
SDA
SCL
DAC T
PARA1
VCC
PARA2
GND
H.TILT
H.STAT
V IN
ADRS
H IN
HDSW
VGEN
AGC
IREF
V.SAW
SW.PULSE
H.AMP
U.C.BOW
L.C.BOW
U Y BOW
L Y BOW
U.H.TILT
L.H.TILT
H.TILT
H.STAT
BUS DEC
H.SAW
TO A BOARD CN0107
SDAT
SCLK
GND
V.BLK
CN0607 4P RED :S-MICRO
TO D BOARD CN0522
DF-2
DF-1
GND
GND
+135V
+17.5V
FBP 15V-P
CN0622 9P YEL :S-MICRO
TO DY
CY+
CY-
CY1 3P WHT :S-MICRO
IC1803 LM358P F.B.OP.AMP
IC1601 LM358P QUADRA-POLE
IC1603 LM393P POLE-DRIVE
IC1604 LM393P D-DYNAMIC FOCUS-DRIVE
TO VM BOARD CN1830
Q.P+
NC
Q.P-
CN0630 3P BLK :S-MICRO
Q1812 JC501 BLANKING INVERTER
Q1813 JC501 BLANKING INVERTER
Q1804 JC501 H-STAT-DRIVE
Q1806 JC501 H-STAT-DRIVE
Q1807 2SB734 H-STAT-OUT
Q1802 JA101 CONV.DRIVE
Q1808 JA101 CLAMP-SW
Q1809 2SD2061 C-BOW-OUT
Q1810 2SB774 Y-BOW-OUT
Q1811 JC501 V-RESET
Q1803 JC501 CONV.REG-1
Q1805 2SB772-Q CONV.REG-2
Q1601 JA101 C-SUPPLY
Q1607 2SC2688 DYNAMIC FOCUS-V-OUT
Q1606 2SC2688 DYNAMIC FOCUS-V-OUT
Q1603 JC501 BUFFER
Q1604 JA101 V-SAW-OUT
Q1614 JA101 V-SAW-OUT
Q1602 JC501 V-PULSE-SW
Q1605 JA101 PULSE-BUFFER
Q1610 JC501 PHASE-CONTROL
Q1608 2SB734-T-3 QUADRA POLE-V-OUT
Q1609 2SD774 QUADRA POLE-V-DRIVE
Q1611 JC501
Q1612 JA101 D-QUADRA POLE-DRIVE
Q1613 IRF614 D-QUADRA POLE-OUT
Q1617 JC501 D-DYNAMIC FOCUS-DRIVE
Q1616 JA101 D-DYNAMIC FOCUS-DRIVE
Q1615 2SC3840K D-DYNAMIC FOCUS-DRIVE
Q1618 JC501 WAVEFORM SHAPING
D1801 ERA81-004 VCC-RECT
D1802 1SS133 LIMITER
D1804 1SS133 CLIPPING
D1805 SHOR3042 CONV.OUT
D1806 ERA81-004 CNT.CLAMP
D1807 ERA81-004 CNT.CLAMP
D1808 1SS133 LIMITER-3
D1809 1SS133 LIMITER-2
D1810 1SS133 LIMITER-1
D1811 RGP10G PEAK-RECT
D1812 1SS133 PROTECT
D1601 1SS133 C-SUPPLY
D1602 MTZJ7V6.8B 6.8V-CLAMP
D1605 1SS133 RESET
D1611 1SS133 RESET
D1603 RGP15G RET.C.B1
D1604 MTZJ5.6B CLS-CLIP
D1606 ERA81-004 QUADRA POLE-V-OUT
D1608 ERA81-004 QUADRA POLE-V-OUT
D1607 1SS133 H-SAW-OUT
D1614 1SS133 PROTECT
D1680 ERA38-06
D1612 ERA38-06
JW0 OFF
+9V
+135V
D1
<CONVERGENCE>

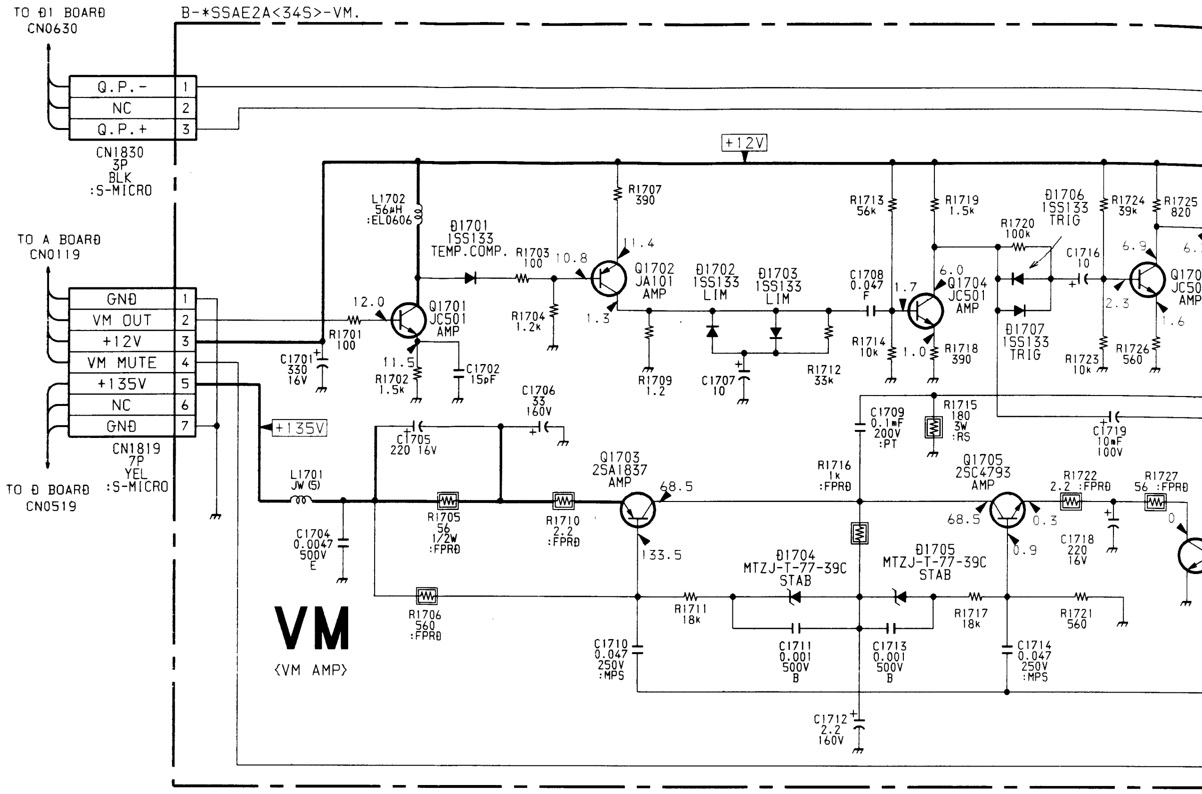
WAVEFORMS D1 BOARD

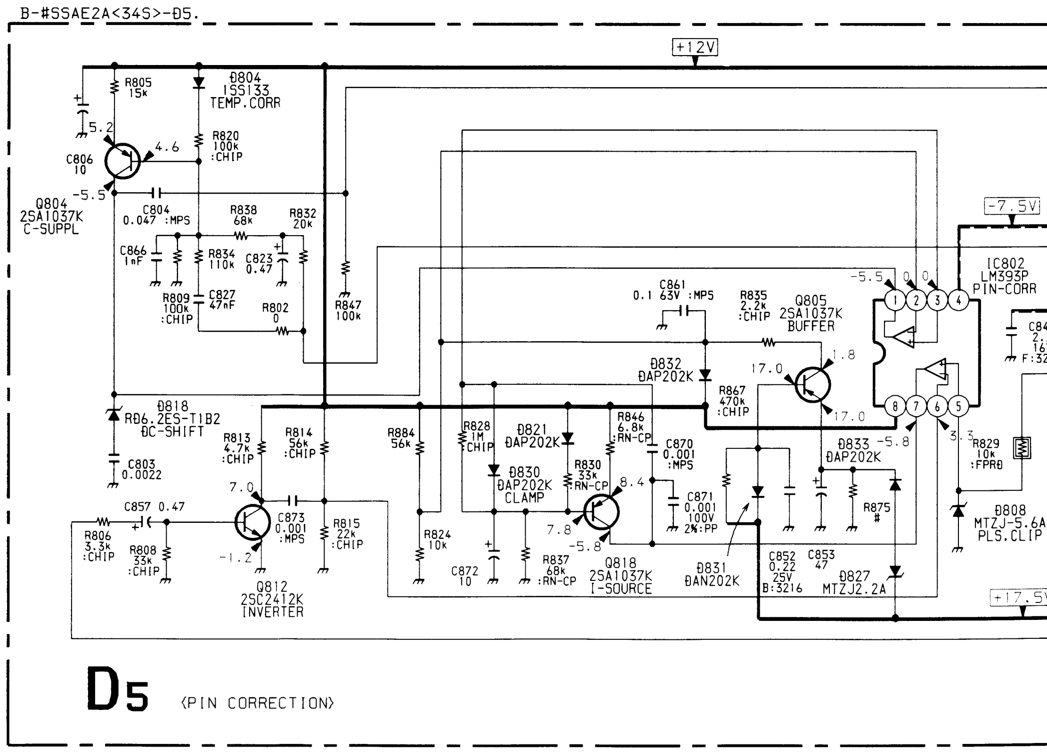


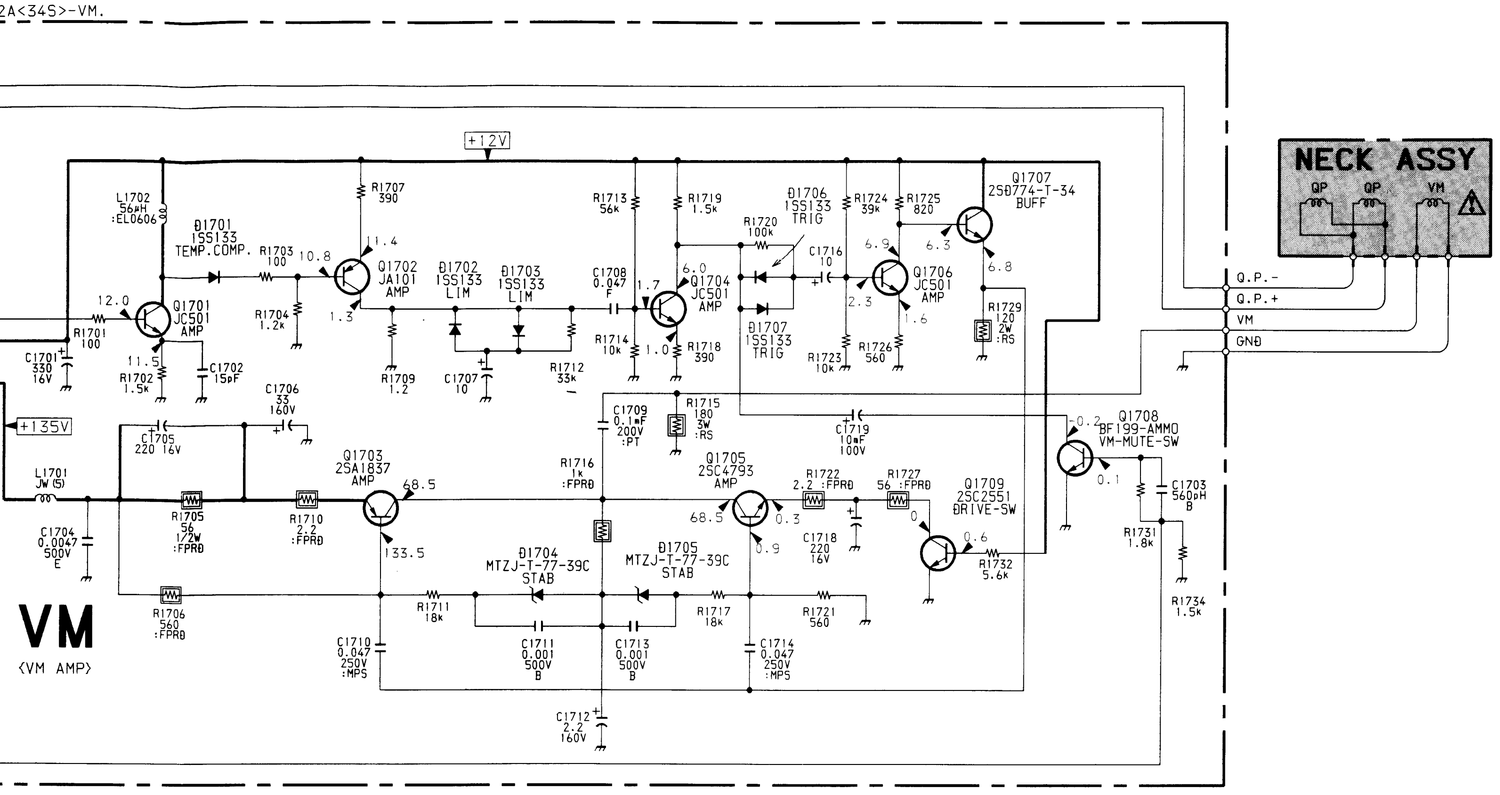

TO DY
CY+
CY-
CY1
3P
WHT
:S-MICRO
IC1803
LM358P
F.B.OP.AMP
Q1809
2SD2061
C-BOW-OUT
Q1810
2SB774
Y-BOW-OUT
Q1811
JC501
V-RESET
Q1806
JC501
H-STAT-DRIVE
Q1807
2SB734
H-STAT-OUT
Q1804
JC501
H-STAT-DRIVE
Q1813
JC501
BLANKING
INVERTER
Q1802
JA101
CONV.DRIVE
Q1808
JA101
CLAMP-SW
Q1803
JC501
CONV.REG-1
Q1805
2SB772-Q
CONV.REG-2
+9V
TO VM BOARD
CN1830
Q.P+
NC
Q.P-
CN0630
3P
BLK
:S-MICRO
IC1601
LM358P
QUADRA-POLE
IC1603
LM393P
POLE-DRIVE
Q1605
JA101
PULSE-BUFFER
Q1608
2SB734-T-3
QUADRA
POLE-V-OUT
Q1609
2SB774
QUADRA
POLE-V-DRIVE
Q1610
JC501
PHASE-CONTROL
Q1611
JC501
Q1612
JA101
D-QUADRA
POLE-DRIVE
Q1613
IRF614
D-QUADRA
POLE-OUT
D1
(CONVERGENCE)

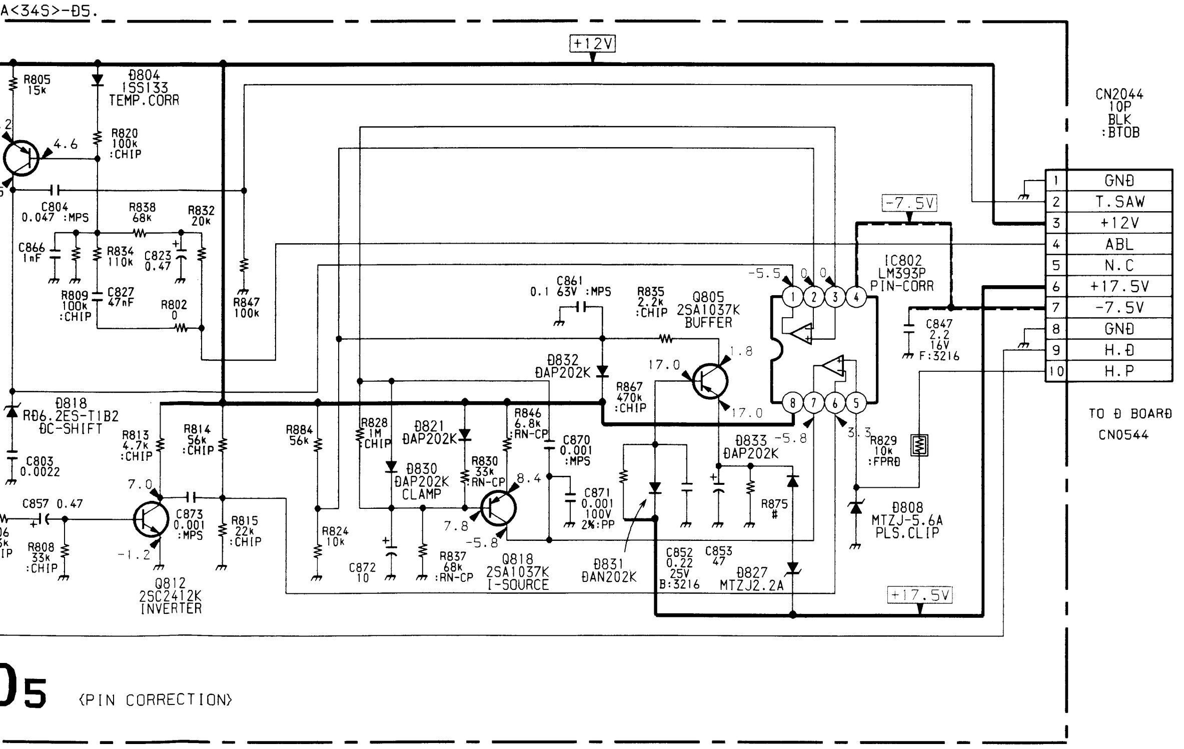
WAVEFORMS D1 BOARD

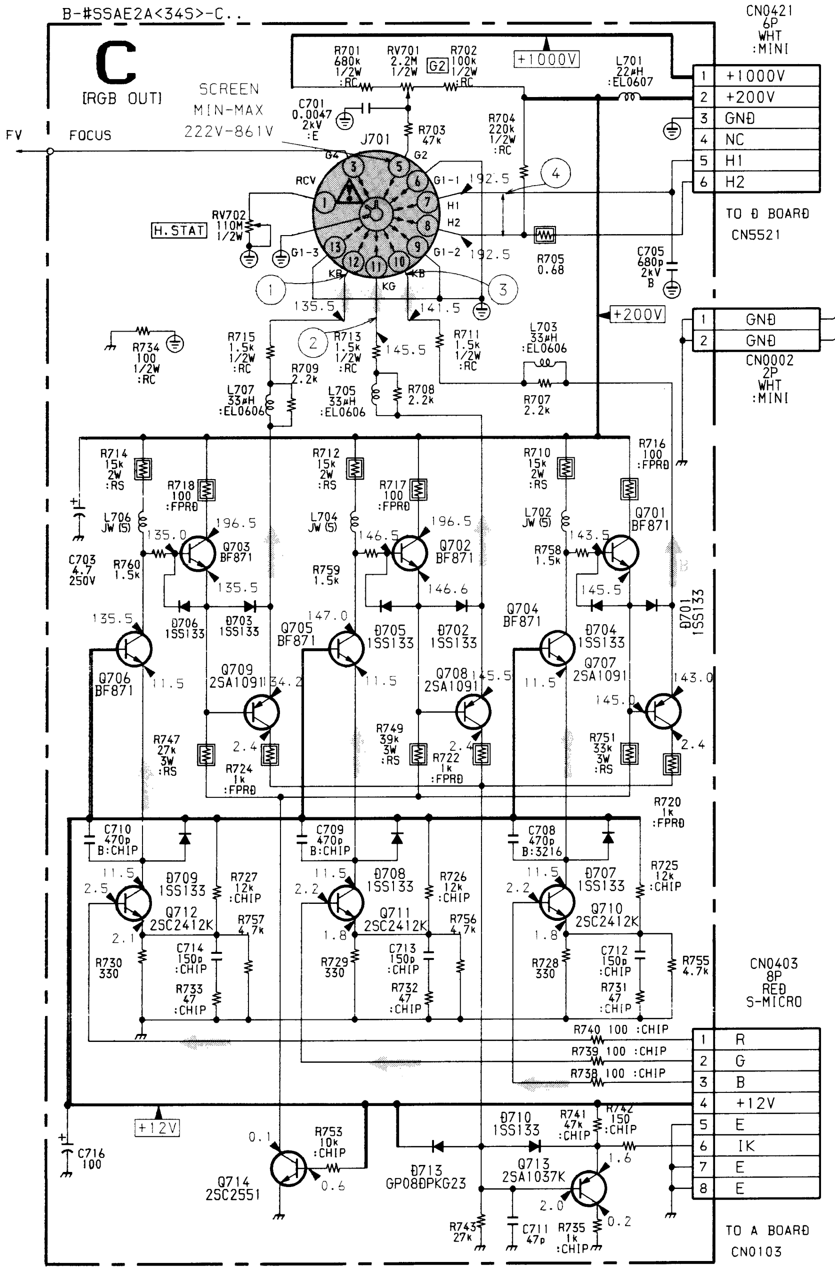


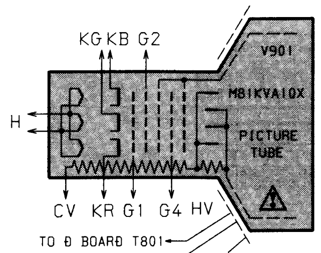

TO D1 BOARD
CN0630
B-*SSAE2A<34S>-VM.
Q.P.-
NC
Q.P.+
CN1830
3P
BLK
:S-MICRO
TO A BOARD
CN0119
GND
VM OUT
+12V
VM MUTE
+135V
NC
GND
CN1819
7P
YEL
:S-MICRO
TO D BOARD
CN0519
+12V
+135V
D1701
1SS133
TEMP.COMP.
Q1701
JC501
AMP
Q1702
JA101
AMP
D1702
1SS133
LIM
D1703
1SS133
LIM
Q1704
JC501
AMP
D1706
1SS133
TRIG
D1707
1SS133
TRIG
Q1703
2SA1837
AMP
Q1705
2SC4793
AMP
D1704
MTZJ-T-77-39C
STAB
D1705
MTZJ-T-77-39C
STAB
VM
(VM AMP)


B-#SSAE2A<34S>-D5.
+12V
-7.5V
D804
1SS133
TEMP.CORR
Q804
2SA1037K
C-SUPPL
IC802
LM393P
PIN-CORR
Q805
2SA1037K
BUFFER
D832
DAP202K
D818
RD6.2ES-T1B2
DC-SHIFT
D821
DAP202K
D830
DAP202K
CLAMP
D833
DAP202K
Q812
2SC2412K
INVERTER
Q818
2SA1037K
I-SOURCE
D831
DAN202K
D827
MTZJ2.2A
D808
MTZJ-5.6A
PLS.CLIP
-17.5V
D5
(PIN CORRECTION)

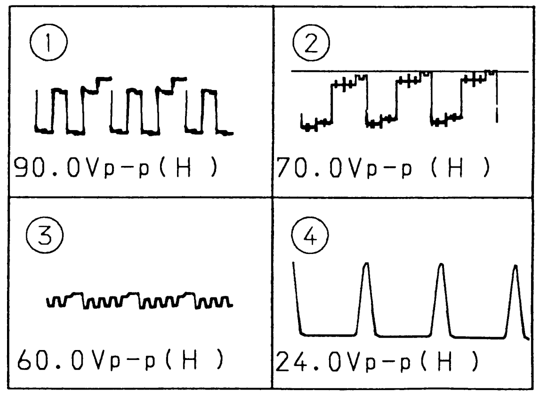

2A<34S>-VM.
VM
<VM AMP>
NECK ASSY
QP QP VM
+12V
+135V
Q.P.-
Q.P.+
VM
GND
Q1701 JC501 AMP
Q1702 JA101 AMP
Q1703 2SA1837 AMP
Q1704 JC501 AMP
Q1705 2SC4793 AMP
Q1706 JC501 AMP
Q1707 2SB774-T-34 BUFF
Q1708 BF199-AMMO VM-MUTE-SW
Q1709 2SC2551 DRIVE-SW
D1701 1SS133 TEMP.COMP.
D1702 1SS133 LIM
D1703 1SS133 LIM
D1704 MTZJ-T-77-39C STAB
D1705 MTZJ-T-77-39C STAB
D1706 1SS133 TRIG
D1707 1SS133 TRIG
L1701 JW(5)
L1702 56μH :EL0606


2A<34S>-D5.
D5
<PIN CORRECTION>
+12V
-7.5V
+17.5V
IC802 LM393P PIN-CORR
Q805 2SA1037K BUFFER
Q812 2SC2412K INVERTER
Q818 2SA1037K I-SOURCE
D804 1SS133 TEMP.CORR
D818 RD6.2ES-T1B2 DC-SHIFT
D821 DAP202K
D830 DAP202K CLAMP
D831 DAN202K
D832 DAP202K
D833 DAP202K
D827 MTZJ2.2A
D808 MTZJ-5.6A PLS.CLIP
CN2044 10P BLK :BTOB
1 GND
2 T.SAW
3 +12V
4 ABL
5 N.C
6 +17.5V
7 -7.5V
8 GND
9 H.D
10 H.P
TO D BOARD CN0544

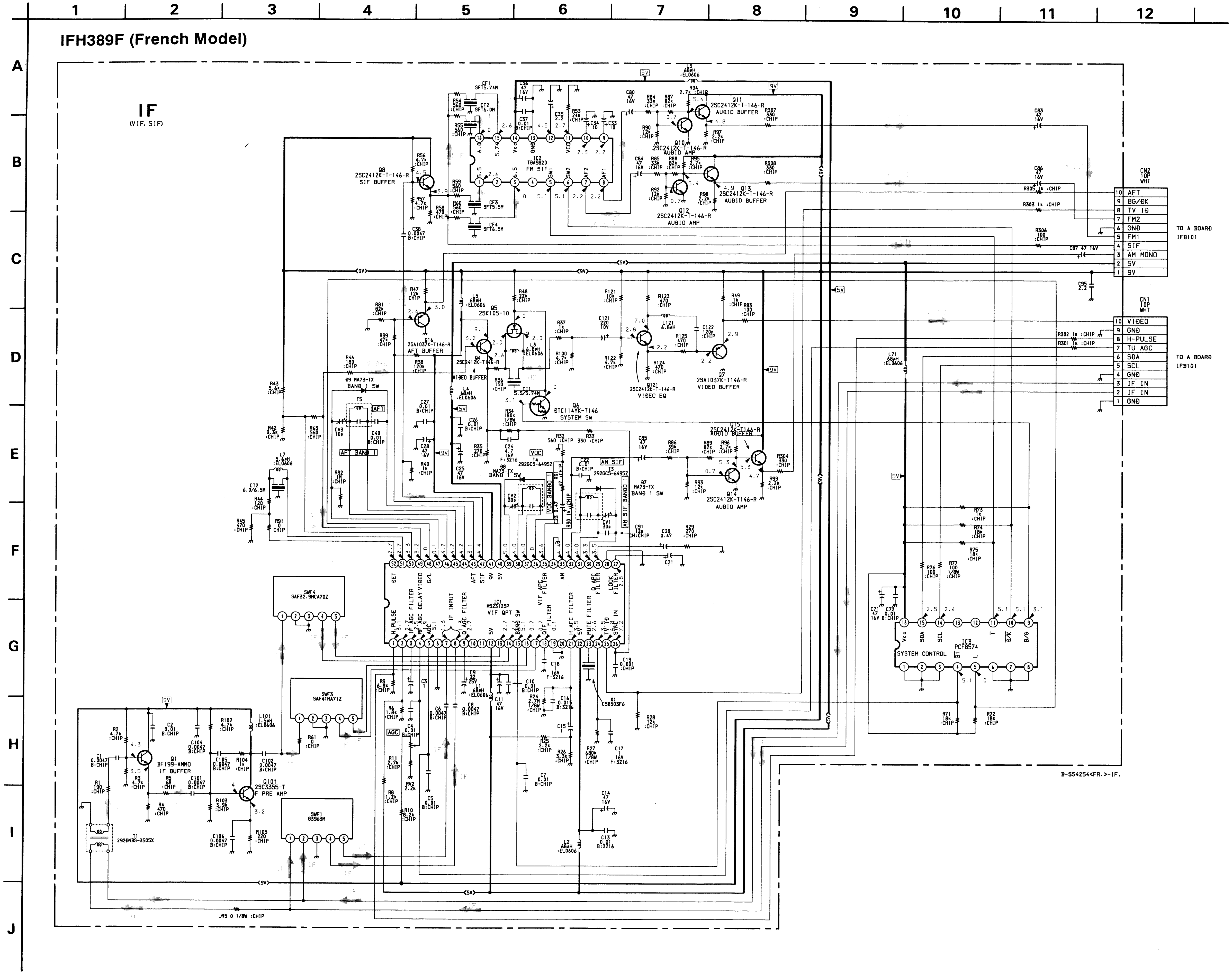

B-#SSAE2A<34S>-C..
C
[RGB OUT]
SCREEN MIN-MAX 222V-861V
FV
FOCUS
J701
H.STAT
RV702 110M 1/2W
RV701 2.2M 1/2W
G2
+1000V
+200V
+12V
CN0421 6P WHT :MINI
1 +1000V
2 +200V
3 GND
4 NC
5 H1
6 H2
TO D BOARD CN5521
CN0002 2P WHT :MINI
1 GND
2 GND
Q701 BF871
Q702 BF871
Q703 BF871
Q704 BF871
Q705 BF871
Q706 BF871
Q707 2SA1091
Q708 2SA1091
Q709 2SA1091
Q710 2SC2412K
Q711 2SC2412K
Q712 2SC2412K
Q713 2SA1037K
Q714 2SC2551
D713 GP08DPKG23
CN0403 8P RED S-MICRO
1 R
2 G
3 B
4 +12V
5 E
6 IK
7 E
8 E
TO A BOARD CN0103


KG KB G2
V901
M81KVA10X
PICTURE TUBE
H
CV KR G1 G4 HV
TO D BOARD T801

WAVEFORMS C BOARD



IFH389F (French Model)


1
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3
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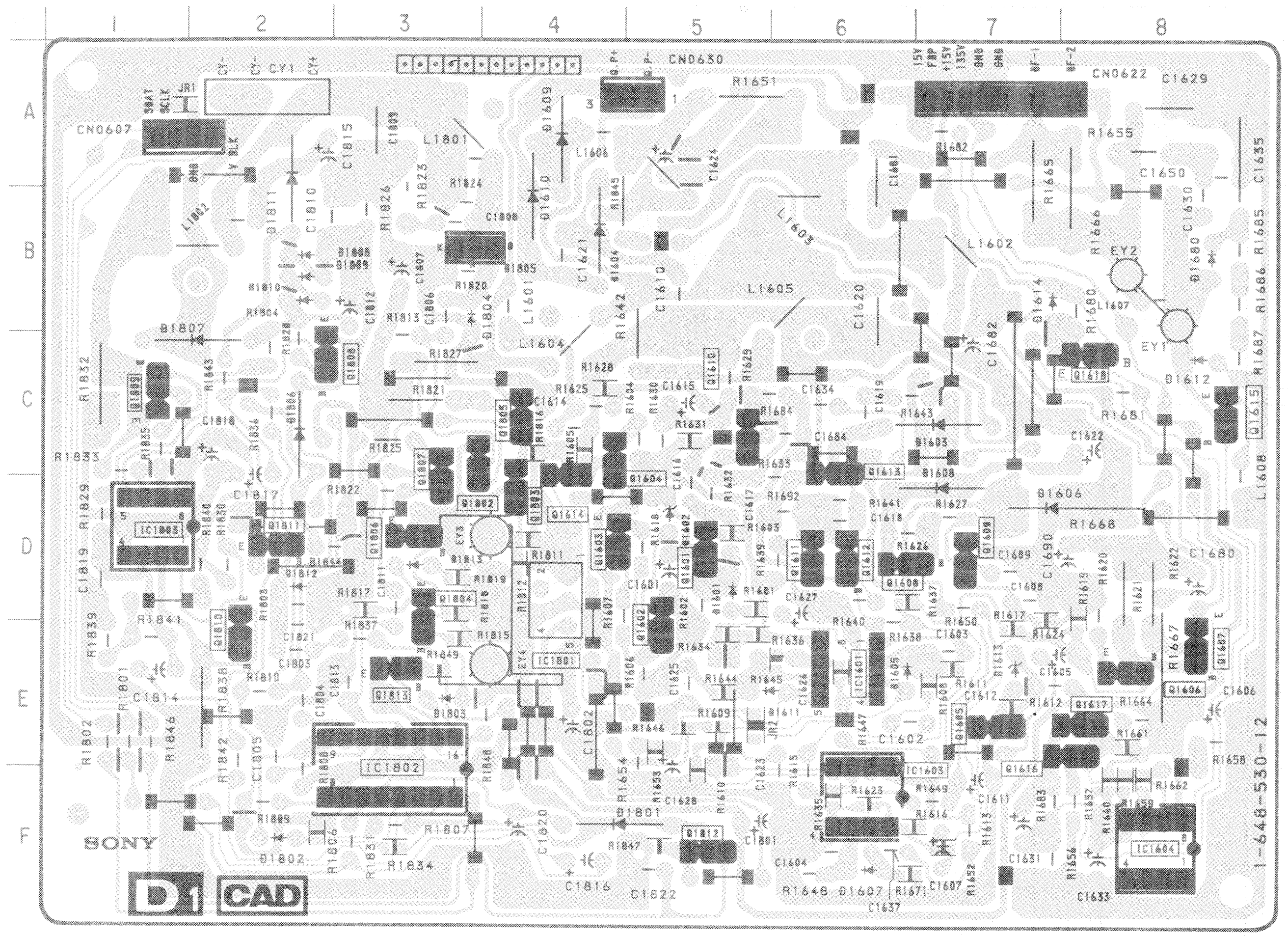
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
IF
(VIF, SIF)
IC2 TBA9820 FM SIF
IC1 M52312SP VIF QPT
IC3 PCF8574 SYSTEM CONTROL
Q8 2SC2412K-T-146-R SIF BUFFER
Q11 2SC2412K-T-146-R AUDIO BUFFER
Q10 2SC2412K-T-146-R AUDIO AMP
Q13 2SC2412K-T-146-R AUDIO BUFFER
Q12 2SC2412K-T-146-R AUDIO AMP
Q16 2SA1037K-T146-R AFT BUFFER
Q5 2SK105-10
Q4 2SC2412K-T146-R VIDEO BUFFER
Q6 DTC114YK-T146 SYSTEM SW
Q121 2SC2412K-T-146-R VIDEO EQ
Q7 2SA1037K-T146-R VIDEO BUFFER
Q15 2SC2412K-T146-R AUDIO BUFFER
Q14 2SC2412K-T-146-R AUDIO AMP
Q1 BF199-AMMO IF BUFFER
Q101 2SC3355-T IF PRE AMP
SWF4 SAF32.9MCA70Z
SWF3 SAF41MA71Z
SWF1 G3963M
T1 2920N85-3505X
X1 CSB503F6
CF1 SFT5.74M
CF2 SFT6.0M
CF3 SFT5.5M
CF4 SFT6.5M
CT2 6.0/6.5M
CN2 10P WHT
10 AFT
9 BG/DK
8 TV I0
7 FM2
6 GND
5 FM1
4 SIF
3 AM MONO
2 5V
1 9V
TO A BOARD IFB101
CN1 10P WHT
10 VIDEO
9 GND
8 H-PULSE
7 TU AGC
6 SDA
5 SCL
4 GND
3 IF IN
2 IF IN
1 GND
TO A BOARD IFB101
AFT
AFT BAND 1
VOC
AM SIF
AGC
9V
5V
JR5 0 1/8W :CHIP
B-S54254<FR.>-IF.

D1 [CONVERGENCE] **VM** [VM AMP] **C** [RGB OUT] **D5** [PIN CORRECTION]

– D1 BOARD –

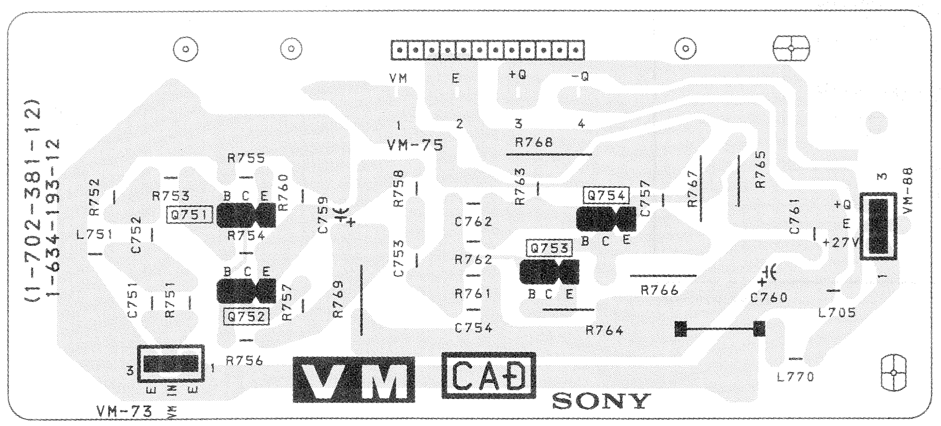

1
2
3
4
5
6
7
8
A
B
C
D
E
F
CN0607
CN0630
CN0622
SONY
D1
CAD
1-648-530-12

IC	
IC1601	E – 6
IC1603	F – 6
IC1604	F – 8
IC1801	D – 4
IC1802	E – 3
IC1803	D – 1

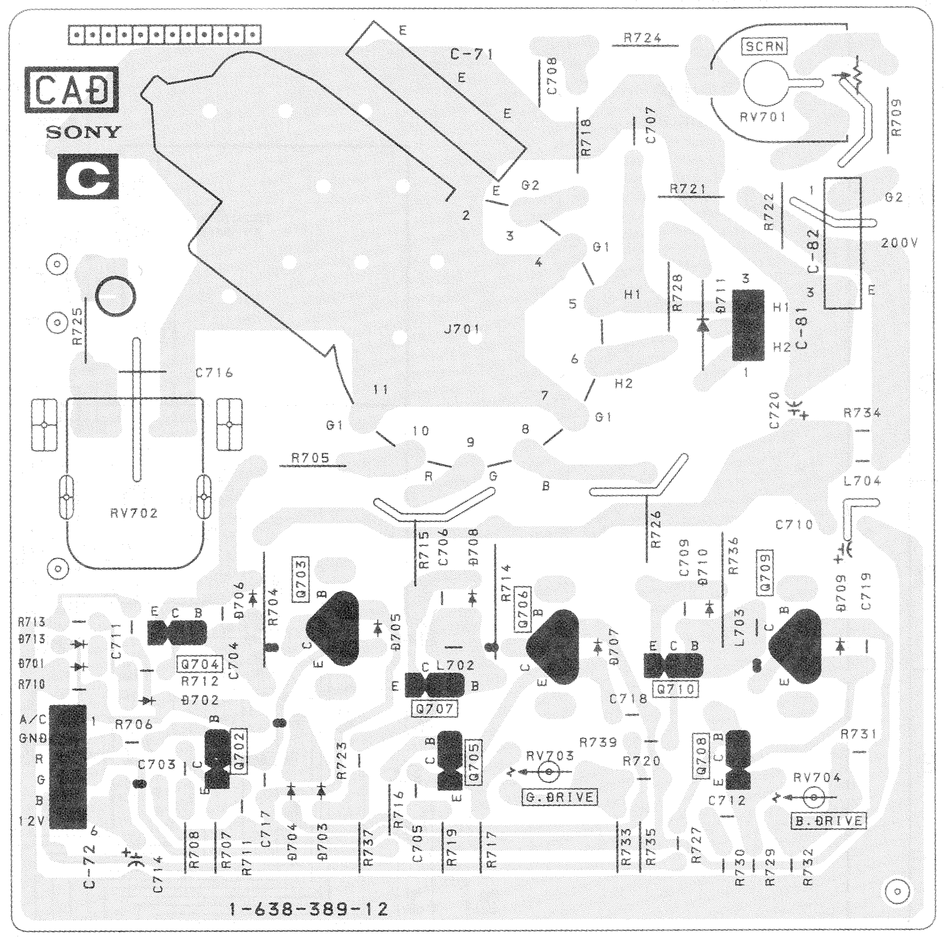
TRANSISTOR	
Q1601	D – 5
Q1602	D – 5
Q1603	D – 4
Q1604	C – 4
Q1605	E – 7
Q1606	E – 8
Q1607	E – 8
Q1608	D – 6
Q1609	D – 7
Q1610	C – 5
Q1611	D – 6
Q1612	D – 6
Q1613	C – 5
Q1614	C – 4
Q1615	C – 8
Q1616	E – 8
Q1617	E – 8
Q1618	C – 8
Q1802	C – 3
Q1803	D – 4
Q1804	D – 3
Q1805	C – 4
Q1806	D – 3
Q1807	C – 3
Q1808	C – 2
Q1809	C – 1
Q1810	E – 1
Q1811	D – 2
Q1812	F – 5
Q1813	E – 3

DIODE	
D1601	D – 5
D1602	D – 5
D1603	C – 7
D1605	E – 6
D1606	D – 7
D1607	F – 6
D1608	D – 7
D1611	E – 6
D1612	C – 8
D1613	E – 7
D1614	B – 7
D1680	B – 8
D1801	F – 5
D1802	F – 2
D1804	B – 3
D1805	B – 4
D1806	C – 2
D1807	B – 2
D1808	B – 2
D1809	B – 2
D1810	B – 2
D1811	A – 2
D1812	D – 2

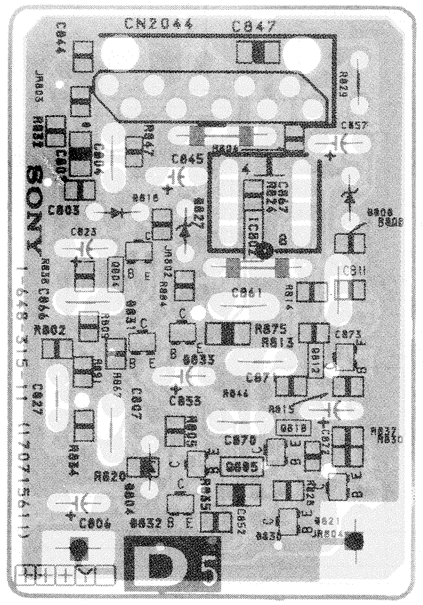
– VM BOARD –


(1-702-381-12)
1-634-193-12
VM-75
VM-73
VM-88
VM
CAD
SONY

– C BOARD –


CAD
SONY
C
SCRN
J701
RV701
RV702
RV703
RV704
G.DRIVE
B.DRIVE
200V
12V
1-638-389-12

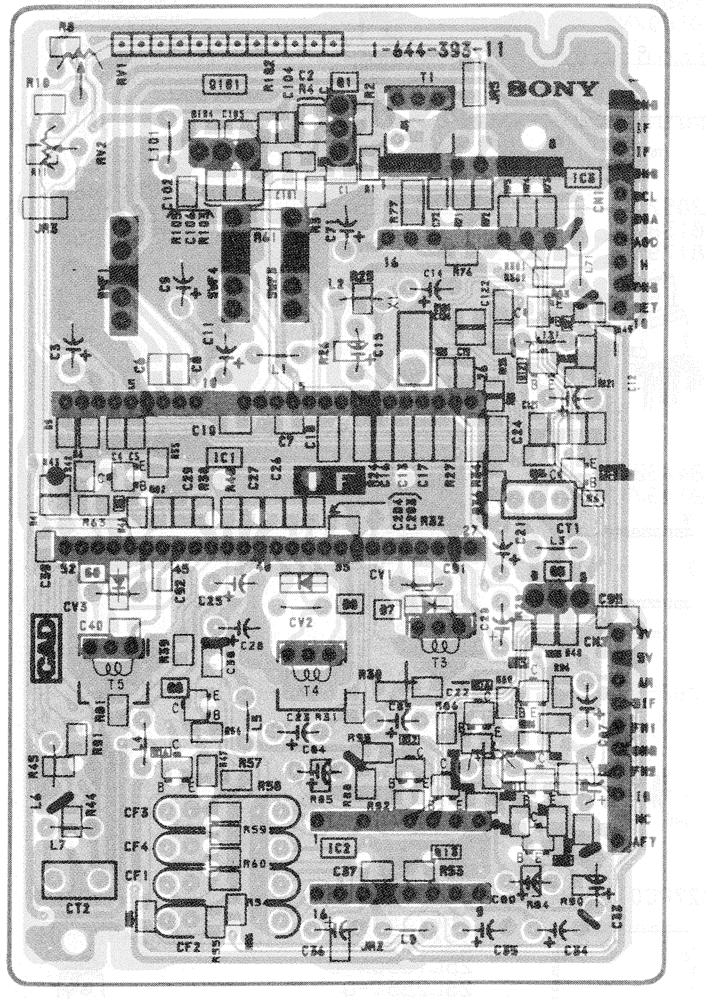
– D5 BOARD –


CN2044
SONY
D5

Note :
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

IF [VIF, SIF]

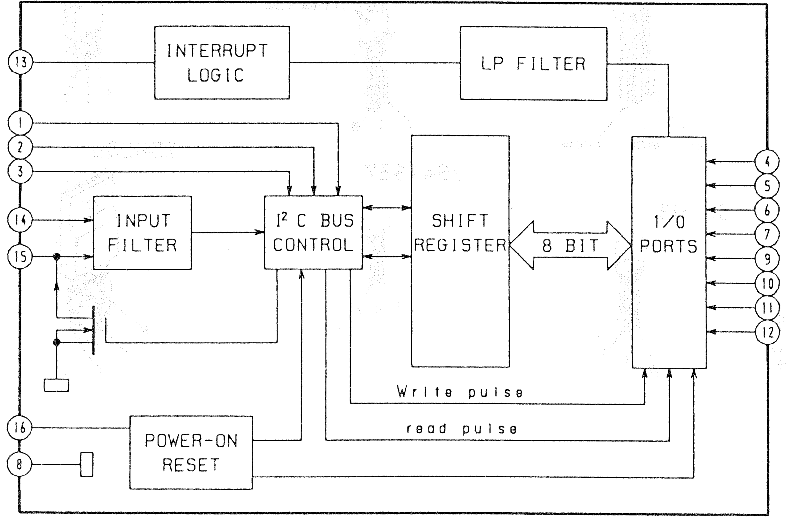
– IF BOARD – (French Model)


1-644-393-11
SONY
IC1
IC2
IC3
T1
T3
T4
T5
CV1
CV2
CV3
CF1
CF2
CF3
CF4
CT1
CT2
CN1
CN2
Q181
JR3
RV1
RV2

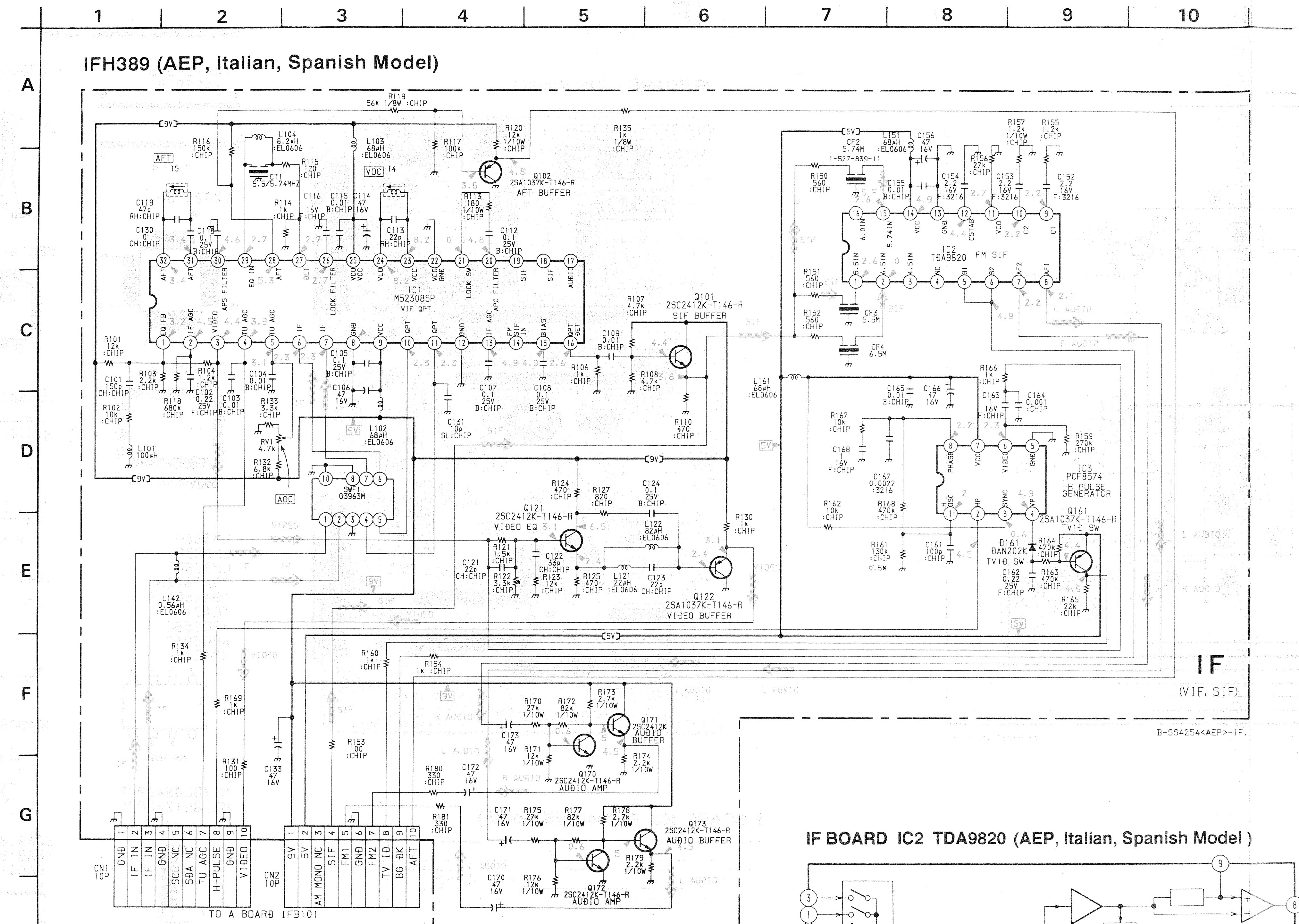
Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

IF BOARD IC3 PC8574 (French Model)


INTERRUPT LOGIC
LP FILTER
INPUT FILTER
I² C BUS CONTROL
SHIFT REGISTER
8 BIT
I/O PORTS
POWER-ON RESET
Write pulse
read pulse
13
1
2
3
14
15
16
8
4
5
6
7
9
10
11
12

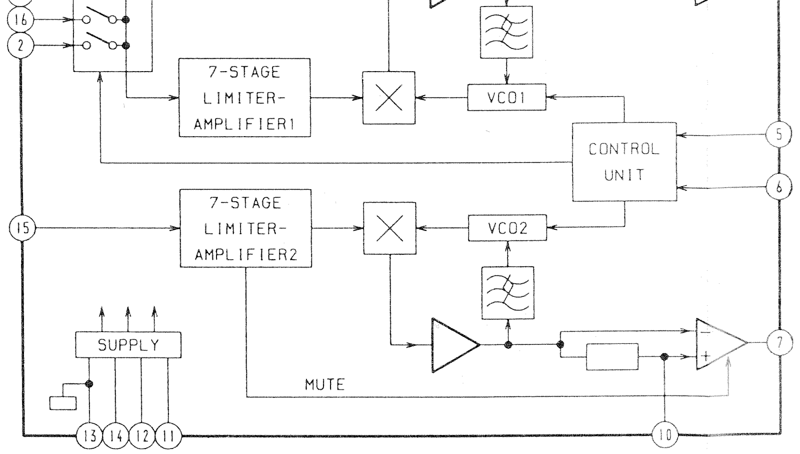
IFH389 (AEP, Italian, Spanish Model)


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
H
I
J
IC1 M52308SP VIF QPT
IC2 TDA9820 FM SIF
IC3 PCF8574 H. PULSE GENERATOR
Q102 2SA1037K-T146-R AFT BUFFER
Q101 2SC2412K-T146-R SIF BUFFER
Q121 2SC2412K-T146-R VIDEO EQ
Q122 2SA1037K-T146-R VIDEO BUFFER
Q161 2SA1037K-T146-R TV1D SW
D161 DAN202K TV1D SW
Q170 2SC2412K-T146-R AUDIO AMP
Q171 2SC2412K AUDIO BUFFER
Q172 2SC2412K-T146-R AUDIO AMP
Q173 2SC2412K-T146-R AUDIO BUFFER
SWF1 G3963M
T4 VCO
T5 AFT
AGC
CF2 5.74M
CF3 5.5M
CF4 6.5M
CT1 5.5/5.74MHZ
9V
5V
CN1 10P
GND
IF IN
IF IN
GND
SCL NC
SDA NC
TU AGC
H-PULSE
GND
VIDEO
CN2 10P
9V
5V
AM MONO NC
SIF
FM1
GND
FM2
TV ID
BG DK
AFT
TO A BOARD IFB101
VIDEO
SIF
AUDIO
L AUDIO
R AUDIO

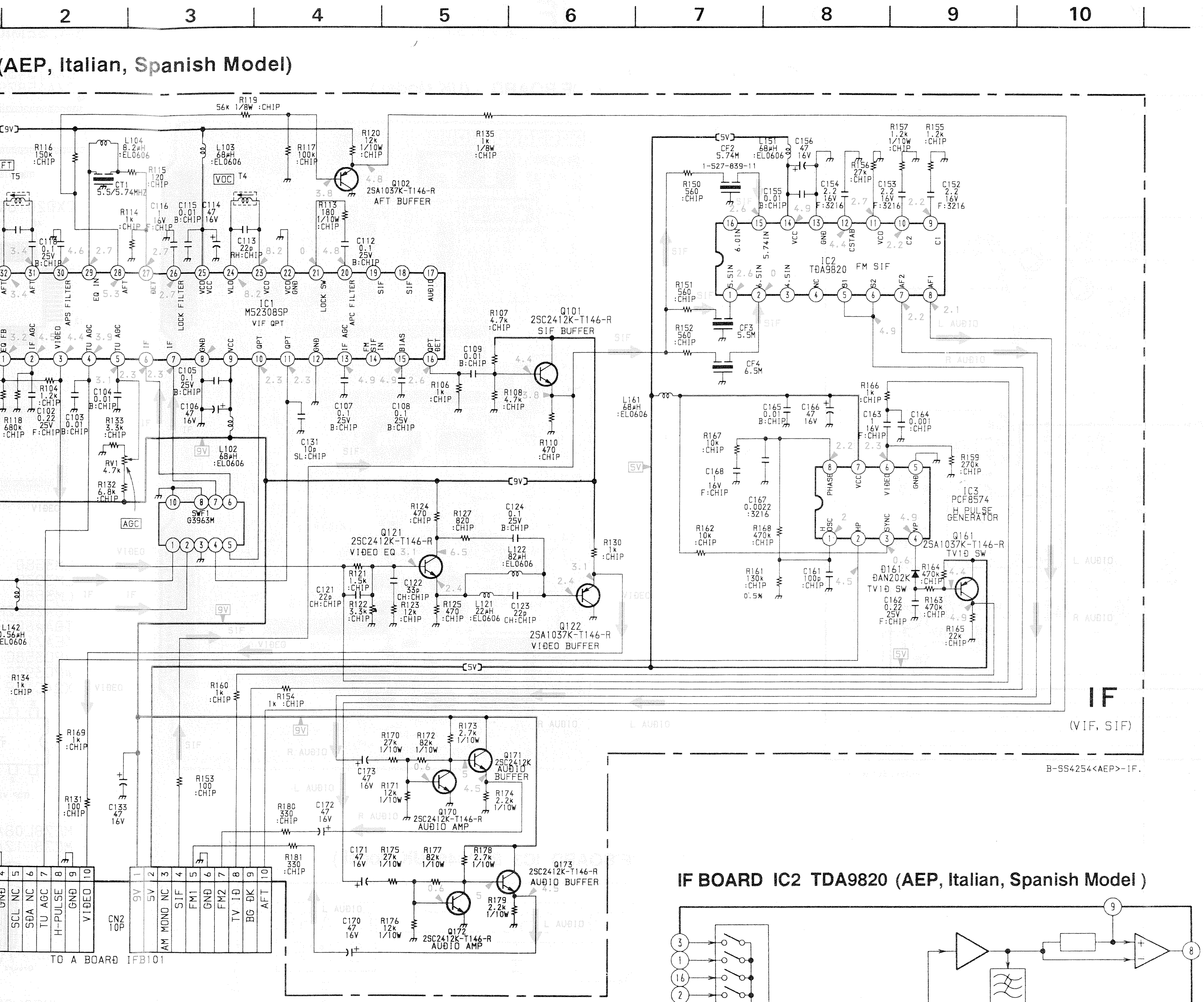
IF
(VIF, SIF)

B-SS4254<AEP>-IF.

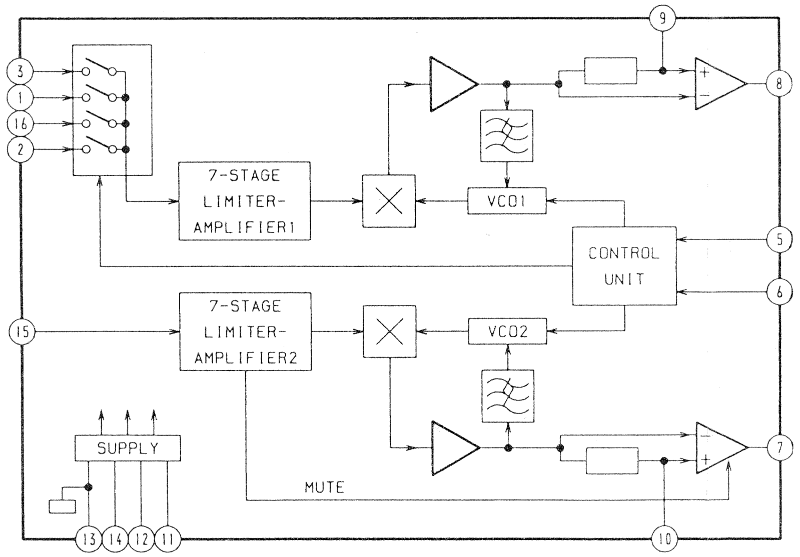
IF BOARD IC2 TDA9820 (AEP, Italian, Spanish Model)


7-STAGE LIMITER-AMPLIFIER1
7-STAGE LIMITER-AMPLIFIER2
VCO1
VCO2
CONTROL UNIT
SUPPLY
MUTE
3
1
16
2
15
9
8
5
6
7
10
13
14
12
11

(AEP, Italian, Spanish Model)

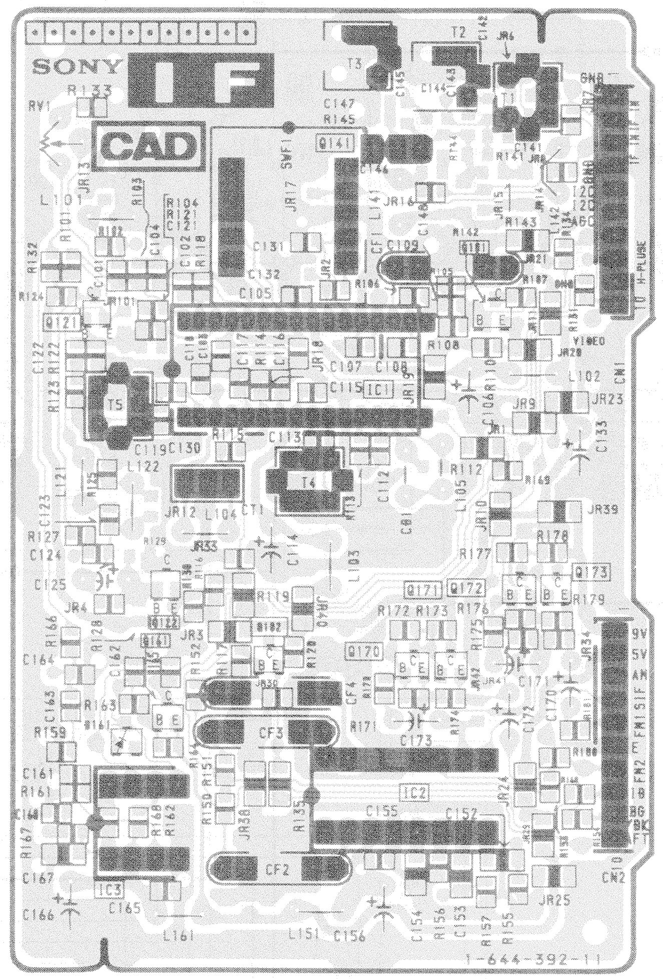

2
3
4
5
6
7
8
9
10
IC1
M52308SP
VIF QPT
IC2
TDA9820 FM SIF
IC3
PCF8574
H PULSE GENERATOR
Q101
2SC2412K-T146-R
SIF BUFFER
Q102
2SA1037K-T146-R
AFT BUFFER
Q121
2SC2412K-T146-R
VIDEO EQ
Q122
2SA1037K-T146-R
VIDEO BUFFER
Q161
2SA1037K-T146-R
TV1Ð SW
D161
ÐAN202K
TV1Ð SW
Q170
2SC2412K-T146-R
AUDIO AMP
Q171
2SC2412K
AUDIO BUFFER
Q172
2SC2412K-T146-R
AUDIO AMP
Q173
2SC2412K-T146-R
AUDIO BUFFER
SWF1
G3963M
CN2
10P
TO A BOARD IFB101
IF
(VIF, SIF)
B-SS4254<AEP>-IF.

IF BOARD IC2 TDA9820 (AEP, Italian, Spanish Model)

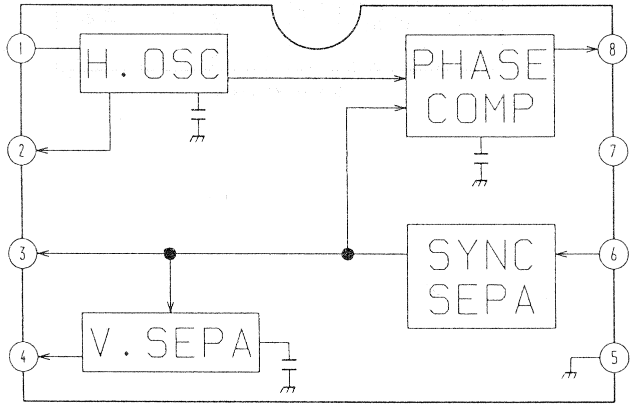

7-STAGE
LIMITER-
AMPLIFIER1
VCO1
CONTROL
UNIT
7-STAGE
LIMITER-
AMPLIFIER2
VCO2
SUPPLY
MUTE
1
2
3
5
6
7
8
9
10
11
12
13
14
15
16

IF [VIF, SIF]

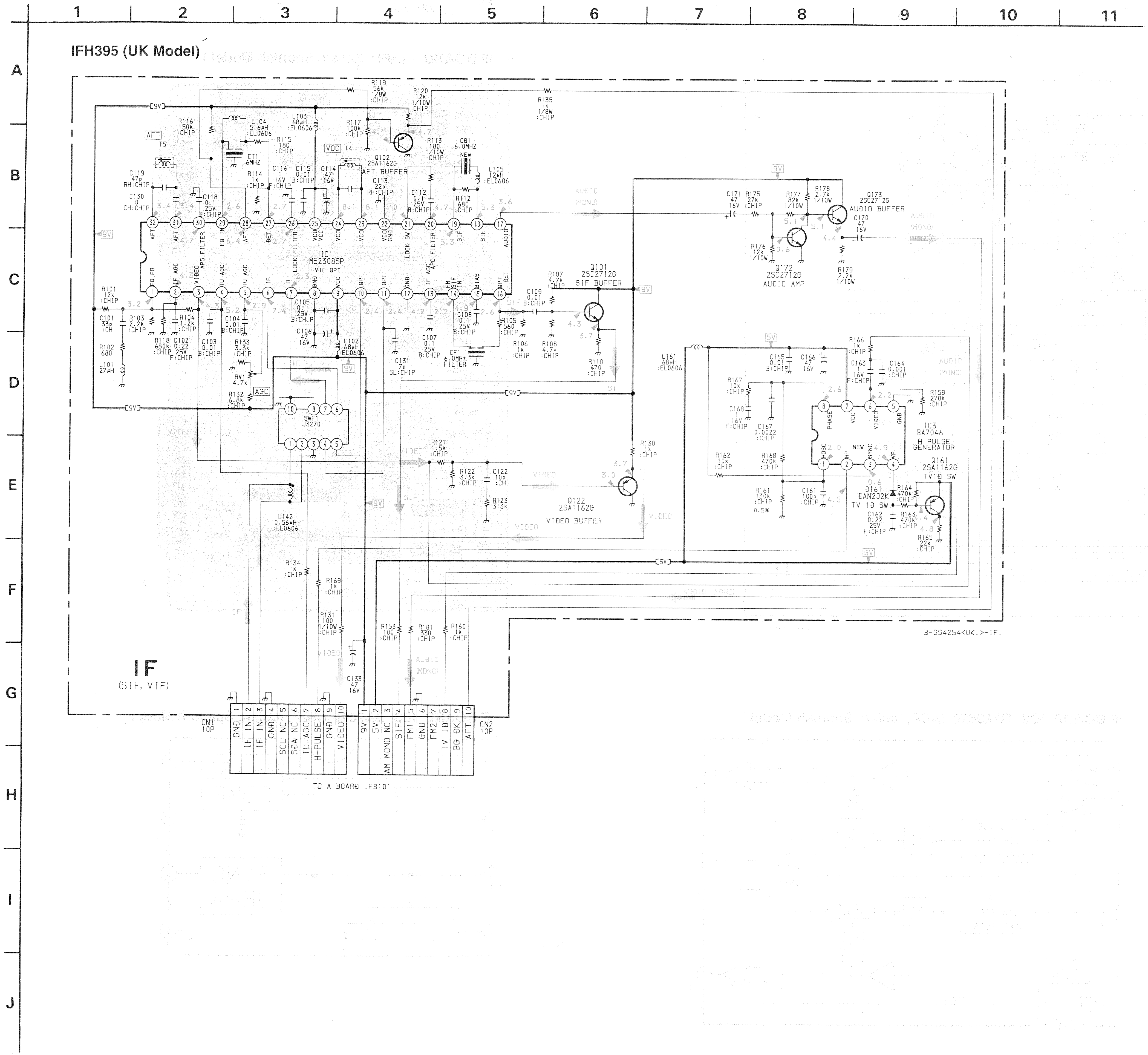
– IF BOARD – (AEP, Italian, Spanish Model)


SONY
IF
CAD
1-644-392-11

IF BOARD IC3 BA7046 (AEP, Italian, Spanish Model)

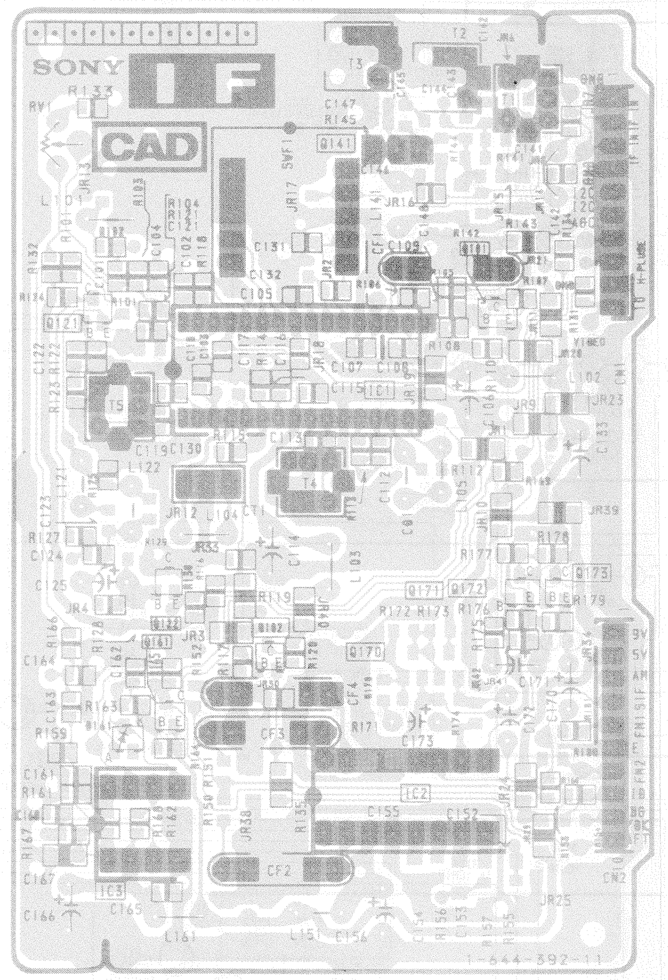

H. OSC
PHASE
COMP
SYNC
SEPA
V. SEPA
1
2
3
4
5
6
7
8

IFH395 (UK Model)

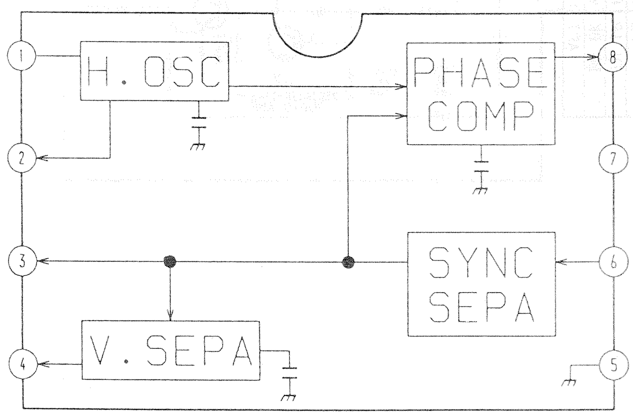

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
IC1
M52308SP
VIF QPT
Q101
2SC2712G
SIF BUFFER
Q102
2SA1162G
AFT BUFFER
Q122
2SA1162G
VIDEO BUFFER
Q172
2SC2712G
AUDIO AMP
Q173
2SC2712G
AUDIO BUFFER
IC3
BA7046
H PULSE GENERATOR
Q161
2SA1162G
TV ID SW
D161
DAN202K
TV ID SW
SWF1
J3270
CF1
6.0MHz
FILTER
AFT
VCO
AGC
RV1
4.7k
IF
(SIF, VIF)
CN1
10P
GND
IF IN
IF IN
GND
SCL NC
SDA NC
TU AGC
H-PULSE
GND
VIDEO
CN2
10P
9V
5V
AM MONO NC
SIF
FM1
GND
FM2
TV ID
BG DK
AFT
TO A BOARD IFB101
B-SS4254<UK.>-IF.

IF [VIF, SIF]

– IF BOARD – (UK Model)

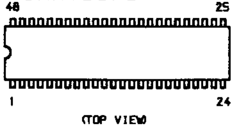

SONY
IF
CAD
1-644-392-11

IF BOARD IC3 BA7046 (UK Model)

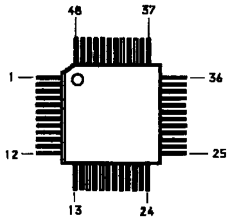

H.OSC
PHASE COMP
SYNC SEPA
V.SEPA
1
2
3
4
5
6
7
8

5-4. SEMICONDUCTORS

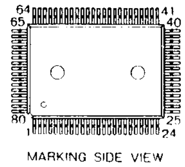
CXA1545AS
CXA1587S


48
25
1
24
(TOP VIEW)

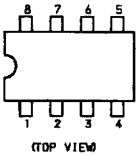
CXD2018Q


48
37
1
36
12
25
13
24

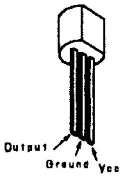
CXD2024Q


64
41
65
40
80
25
1
24
MARKING SIDE VIEW

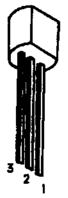
LM358D
LM393P
LM358P
TDA2822M
TDA4605-3
TEA2114
μPC358C
μPC393C
X24C16P


8 7 6 5
1 2 3 4
(TOP VIEW)

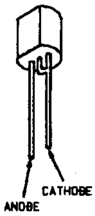
MC78L08ACPRP
MC78L12ACPRP


Output
Ground
Vcc

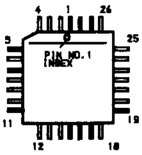
NJM78L05A
NJM78L05F
NJM78M09FA



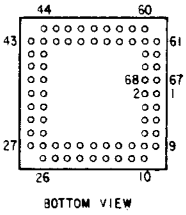
RC7809FA


ANODE
CATHODE

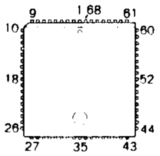
SBX1610-11


4
1
26
5
25
PIN NO.1 INDEX
11
19
12
18

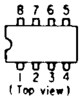
SDA30C162-GEG


44
60
43
61
68
67
2
1
27
9
26
10
BOTTOM VIEW

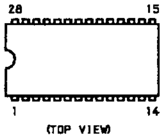
SDA5273-B14-GEG


9
1
68
61
10
60
18
52
26
44
27
35
43

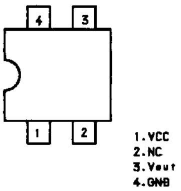
SDA9085


8 7 6 5
1 2 3 4
(Top view)

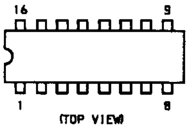
SDA91872X-GEG
SDA91883X-GEG
TDA6612


28
15
1
14
(TOP VIEW)

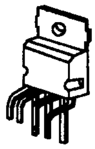
SFH617G-1


4
3
1
2
1.VCC
2.NC
3.Vout
4.GND

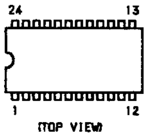
SN74LS221N
TDA466A/V2
TDA9160/N2


16
9
1
8
(TOP VIEW)

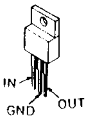
TDA2052
TDA8138
TDA8179S



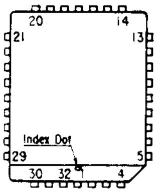
TDA8443B
TDA9145/N1


24
13
1
12
(TOP VIEW)

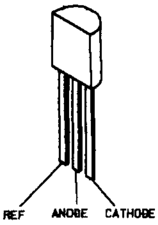
TEA7605



TMS27PC010A-15FML


20
14
21
13
Index Dot
29
5
30
32
4

TL431CLP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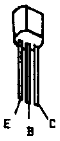
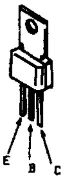
ANODE
CATHODE

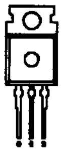
BF199



BF871



BUZ91A-E3155



DTA124EK
DTA144EK
DTA144TK
DTC114EK
DTC124EK
DTC144EK
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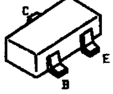
2SA1162-G
2SC1623-L5L6
2SC2412K-T-146-R
2SC2412K-T-146-QR
2SC2413KQ



JA101-Q
JC501-Q-AMMO
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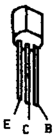
2SA1091-O
2SC1890A-D
2SC2551-O



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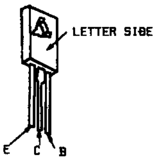
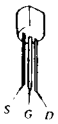
2SB772-Q
2SC2688-LK


LETTER SIDE
E
C
B

2SA1837



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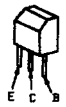
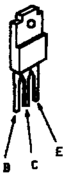
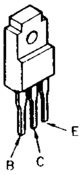
2SD774-34



2SB1186A
2SC3298B-Y
2SD1763A



2SC4793



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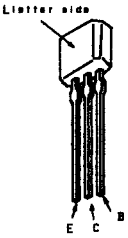
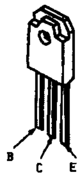

Letter side
E
C
B

2SC4927-01



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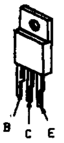
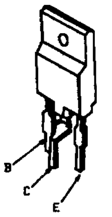
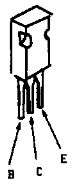
2SD2012



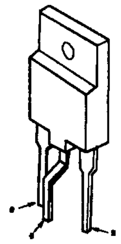
2SD2061



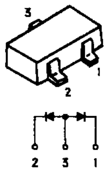
2SD2096-EF



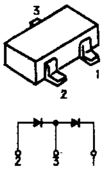
2SK1916-53-F50



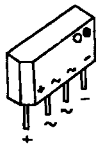
DAN202K
DAP202K
1S2836



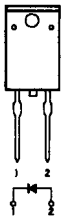
DA204K



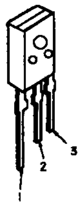
1SS226



DSL60



D10SC6M



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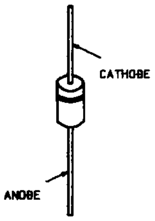
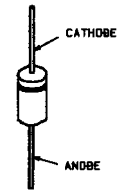
ERC25-06S
RGP02-20EL-6394
RU30ALFS1
RU3AM


CATHODE
ANODE

EL1Z
ERB44-06
GP08D
RGP10GPKG23
RGP15GPKG23
R2K-V1
1N4148A-T265


CATHODE
ANODE

ERA85-009
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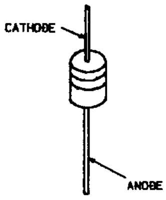
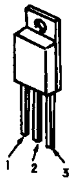
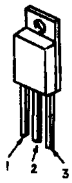
MTZJ-T-77-13C
MTZJ-T-77-15A
MTZJ-T-77-2.2A
MTZJ-T-77-3.6A
MTZJ-T-77-30B
MTZJ-T-77-33C
MTZJ-T-77-39C
MTZJ-T-77-5.6A
MTZJ-T-77-5.6B
MTZJ-T-77-7.5A
MTZJ-T-77-9.1
MTZN-1013
RD12ES-B2
RD5.6ES-B1
RD5.6ES-B2
RD6.2ES-B2
RD7.5ES-B2


CATHODE
ANODE

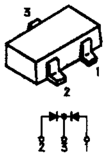
ESAB92-02



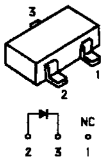
ESAC92M-02



MA152WK



MA3030-H (TK)
MA3039H-TX
MA3047L-TX



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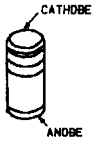
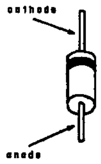
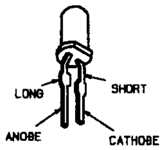

CATHODE
ANODE

RGP02-17EL-6433


cathode
anode

LD201VR


LONG
SHORT
ANODE
CATHODE

SECTION 6
EXPLODED VIEWS

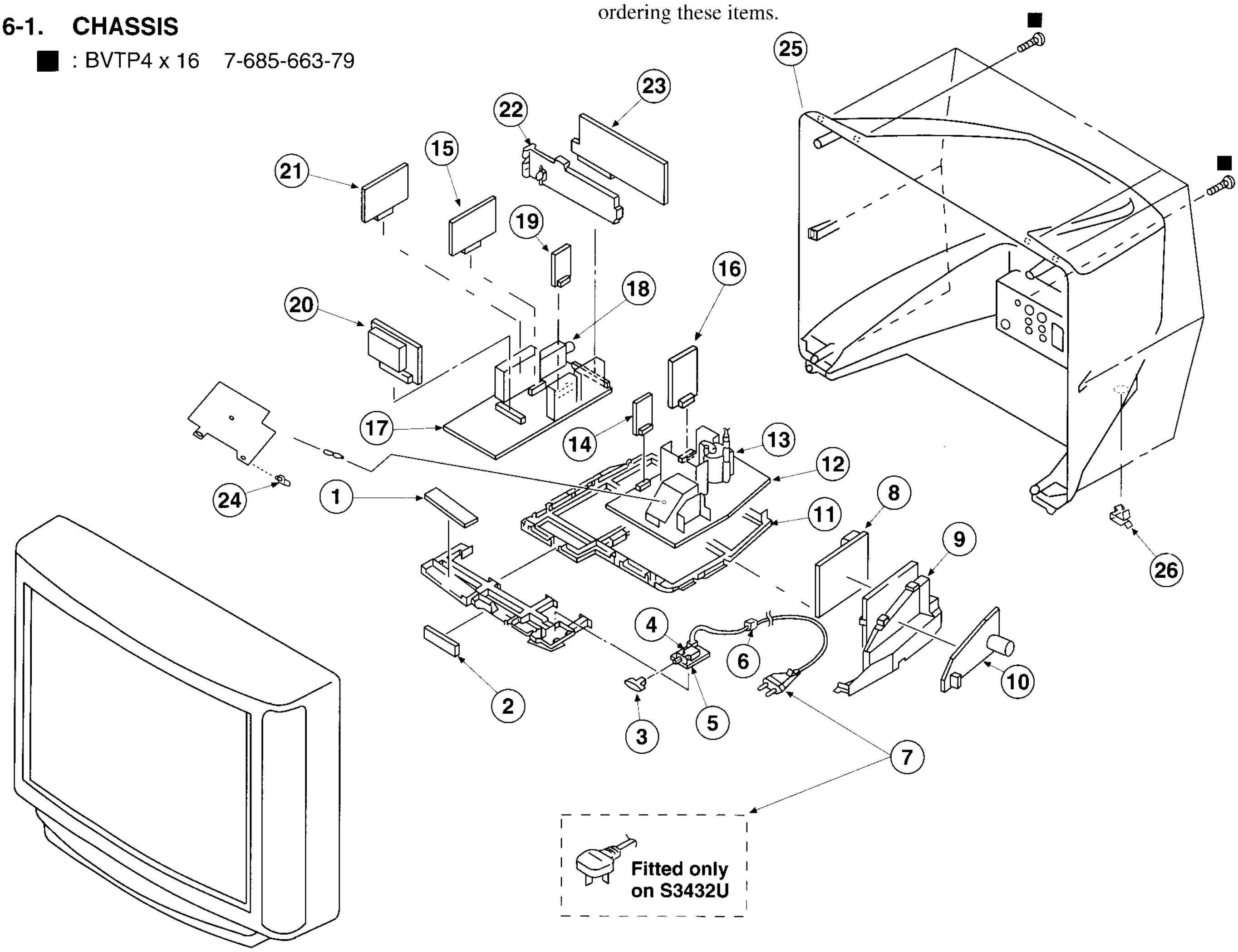
NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

6-1. CHASSIS

■ : BVTP4 x 16 7-685-663-79

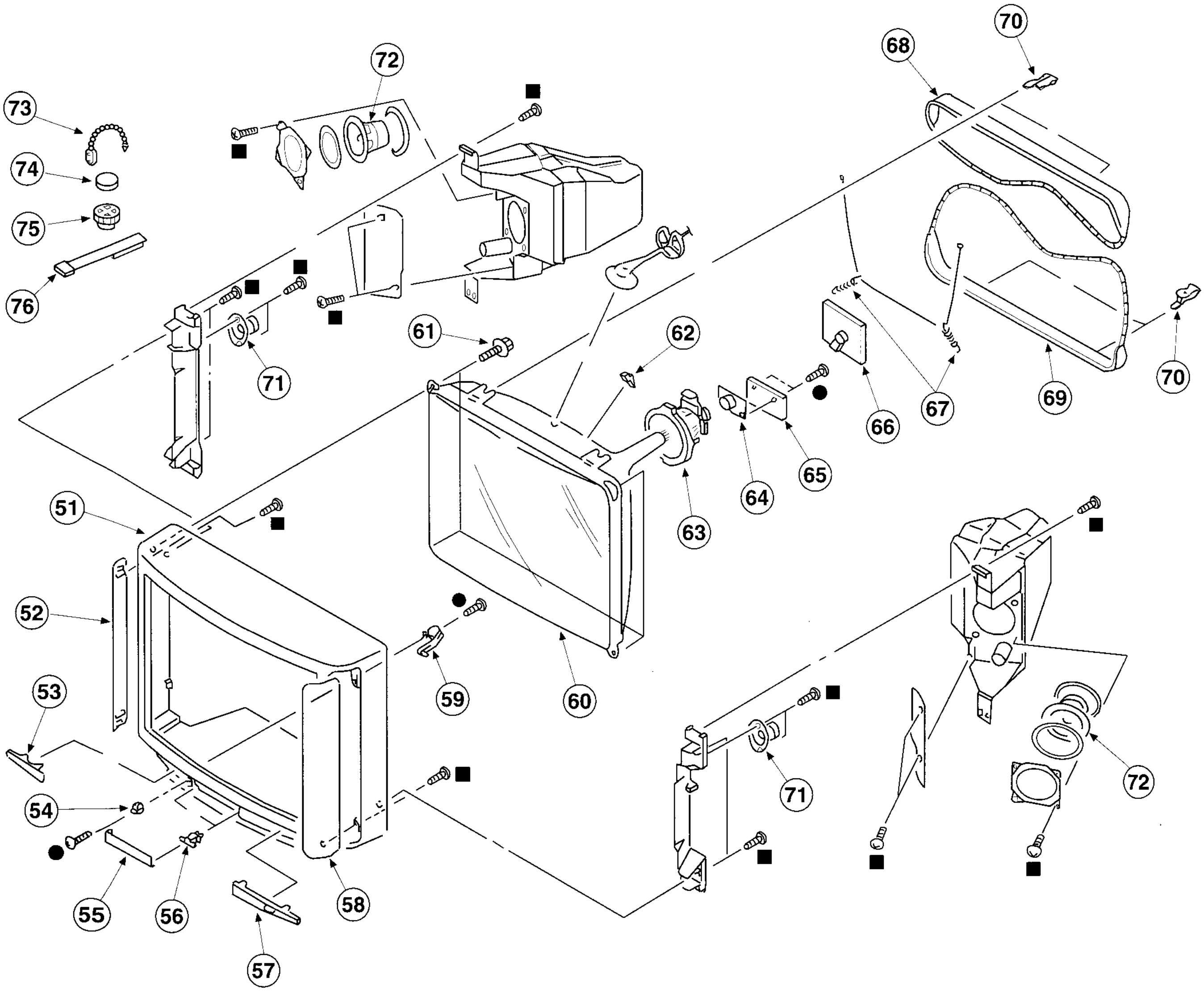


REF NO		PART NO	DESCRIPTION	REMARK
1		*1-648-314-11	H1 BOARD	
2		*1-648-475-11	H2 BOARD	
3		4-202-124-01	BUTTON, POWER	
4	⚠	1-571-433-11	SWITCH, PUSH (AC POWER)	
5		*1-648-312-12	F1 BOARD	
6	⚠	4-389-201-01	HOLDER, AC CORD	
7	⚠	1-751-680-11	CORD, POWER (WITH NOISE FILTER) (KV-S3431A/S3431D/S3433E/S3431K)	
	⚠	1-590-460-11	CORD, POWER (WITH CONNECTOR) (KV-S3431B)	
	⚠	1-590-762-11	CORD, POWER (WITH PLUG) (KV-S3432U)	
8		*A-1640-098-A	D1 BOARD, COMPLETE	
9		*4-202-140-03	BRACKET, F	
10		*A-1624-022-A	F2 BOARD, COMPLETE (KV-S3431A/S3431D)	
		*A-1624-040-A	F2 BOARD, COMPLETE (KV-S3431B/S3433E/ S3431K/S3432U)	
11		*4-202-141-01	BRACKET, MAIN	
12		*A-1642-102-A	D BOARD, COMPLETE	
13	⚠	1-439-524-11	TRANSFORMER ASSY, FLYBACK (NX-3000A2)	
14		*A-1640-113-A	D5 BOARD, COMPLETE	
15		*A-1630-233-A	A4 BOARD, COMPLETE (KV-S3431A,S3431B,S3431D,S3431	
		*A-1630-236-A	A4 BOARD, COMPLETE (KV-S3433E)	
		*A-1630-239-A	A4 BOARD, COMPLETE (KV-S3432U)	
16		*A-1640-114-A	D2 BOARD, COMPLETE	
17		*A-1632-205-A	A BOARD, COMPLETE (KV-S3431A/S3431 S3431	
		*A-1632-206-A	A BOARD, COMPLETE (KV-S3431B)	
		*A-1632-208-A	A BOARD, COMPLETE (KV-S3433E)	
		*A-1632-210-A	A BOARD, COMPLETE (KV-S3432U)	
18		1-693-185-11	TUNER, (UV916H) (KV-S3431A/S3431B/ S3431D/S3433E/S3431K)	
		1-693-184-11	TUNER, (U944C) (KV-S3432U)	
19		*A-1620-049-A	B BOARD, COMPLETE	
20		*A-1635-020-A	M2 BOARD, COMPLETE	
21		*A-1622-006-A	P1 BOARD, COMPLETE	
22		*4-202-135-01	BRACKET, J	
23		*A-1651-054-A	J BOARD, COMPLETE	
24		*4-313-732-00	CLIP, HINGE, CIRCUIT BOARD	
25		4-039-608-01	COVER, REAR	
26	⚠	4-038-615-01	HOLDER, AC CORD	

6-2. PICTURE TUBE

● : BVTP3 x 12 7-685-648-71
■ : BVTP4 x 16 7-685-663-79

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.



REF NO	PART NO	DESCRIPTION	REMARK
51	X-4030-985-1	CABINET ASSY (WITH BEZEL ASSY)	
52	X-4030-983-1	GRILLE (LEFT) ASSY, SPEAKER	
53	4-202-127-01	PLATE, ORNAMENTAL	
54	4-036-881-01	LOCK ASSY, DOOR	
55	4-202-125-01	DOOR	
56	4-202-555-01	SHAFT, DOOR	
57	4-202-123-01	WINDOW, ORNAMENTAL	
58	X-4030-984-1	GRILLE (RIGHT) ASSY, SPEAKER	
59	X-4030-459-1	DAMPER ASSY	
60	⚠ 8-733-731-05	PICTURE TUBE (M81KVA10X) SD-247	
61	4-036-188-01	SCREW (M), PT	
62	3-704-495-01	SPACER, DY	
63	⚠ 1-451-393-12	DEFLECTION YOKE (Y34EXA)	
64	⚠ 1-452-616-11	NECK ASSY, PICTURE TUBE (NA-323)	
65	*A-1342-189-A	VM BOARD, COMPLETE	
66	*A-1638-033-A	C BOARD, COMPLETE	
67	4-369-318-51	SPRING, TENSION	
68	⚠ 1-406-701-11	COIL, DEMAGNETIZATION	
69	⚠ 1-406-702-11	COIL, DEMAGNETIZATION	
70	4-033-744-01	CLIP	
71	1-504-121-21	SPEAKER (SQUAWKER) (5CM)	
72	1-504-145-11	SPEAKER (12CM)	
73	4-308-870-00	CLIP, LEAD WIRE	
74	1-452-032-00	MAGNET, DISK; 10MM Ø	
75	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
76	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	

ELECTRICAL PARTS LIST

SECTION 7

The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

When indicating parts by referenc
number, please include the board
name.

CAPACITORS
MF : mF, PF : mmF

COILS
MMH : mH, μH :

VM **B**

REF.NO.	PART NO.	DESCRIPTION				REMARK
	*A-1342-189-A	VM BOARD, COMPLETE ******************				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		< CAPACITOR >				
C1701	1-124-119-00	ELECT	330MF	20%		16V
C1702	1-102-951-00	CERAMIC	15PF	5%		50V
C1703	1-102-115-00	CERAMIC	560PF	10%		50V
C1704	1-161-830-00	CERAMIC	0.0047MF			500V
C1705	1-124-120-11	ELECT	220MF	20%		16V
C1706	1-123-935-00	ELECT	33MF	20%		160V
C1707	1-124-907-11	ELECT	10MF	20%		50V
C1708	1-101-006-00	CERAMIC	0.047MF			50V
C1709	1-110-364-11	MYLAR	0.1MF	10%		200V
C1710	1-136-207-11	FILM	0.047MF	10%		250V
C1711	1-162-318-11	CERAMIC	0.001MF	10%		500V
C1712	1-124-799-11	ELECT	2.2MF	20%		160V
C1713	1-162-318-11	CERAMIC	0.001MF	10%		500V
C1714	1-136-207-11	FILM	0.047MF	10%		250V
C1716	1-124-907-11	ELECT	10MF	20%		50V
C1718	1-124-120-11	ELECT	220MF	20%		16V
C1719	1-124-907-11	ELECT	10MF	20%		50V
		< CONNECTOR >				
CN1819	*1-568-882-51	PIN, CONNECTOR 7P				
CN1830	*1-568-878-51	PIN, CONNECTOR 3P				
		< DIODE >				
D1701	8-719-901-33	DIODE 1SS133				
D1702	8-719-901-33	DIODE 1SS133				
D1703	8-719-901-33	DIODE 1SS133				
D1704	8-719-982-37	DIODE MTZJ-39C				
D1705	8-719-982-37	DIODE MTZJ-39C				
D1706	8-719-901-33	DIODE 1SS133				
D1707	8-719-901-33	DIODE 1SS133				
		< COIL >				
L1702	1-408-418-00	INDUCTOR	56UH			
		< TRANSISTOR >				
Q1701	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1702	8-729-173-38	TRANSISTOR 2SA733-K				
Q1703	8-729-017-05	TRANSISTOR 2SA1837				
Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1705	8-729-017-06	TRANSISTOR 2SC4793				
Q1706	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1707	8-729-140-96	TRANSISTOR 2SD774-34				
Q1708	8-729-901-59	TRANSISTOR BF199				
Q1709	8-729-255-12	TRANSISTOR 2SC2551-O				
		< RESISTOR >				
R1701	1-247-807-31	CARBON	100	5%	1/4W	
R1702	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1703	1-247-807-31	CARBON	100	5%	1/4W	
R1704	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1705	1-247-736-11	CARBON	56	5%	1/2W	F
R1706	1-249-414-11	CARBON	560	5%	1/4W	F
R1707	1-249-411-11	CARBON	330	5%	1/4W	
R1709	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1710	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1711	1-249-432-11	CARBON	18K	5%	1/4W	
R1712	1-249-435-11	CARBON	33K	5%	1/4W	
R1713	1-249-438-11	CARBON	56K	5%	1/4W	
R1714	1-249-429-11	CARBON	10K	5%	1/4W	
R1715	1-216-476-11	METAL OXIDE	180	5%	3W	F
R1716	1-249-417-11	CARBON	1K	5%	1/4W	F
R1717	1-249-432-11	CARBON	18K	5%	1/4W	
R1718	1-249-412-11	CARBON	390	5%	1/4W	
R1719	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1720	1-249-441-11	CARBON	100K	5%	1/4W	
R1721	1-249-414-11	CARBON	560	5%	1/4W	
R1722	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1723	1-249-429-11	CARBON	10K	5%	1/4W	
R1724	1-249-436-11	CARBON	39K	5%	1/4W	
R1725	1-249-416-11	CARBON	820	5%	1/4W	
R1726	1-249-414-11	CARBON	560	5%	1/4W	
R1727	1-249-402-11	CARBON	56	5%	1/4W	F
R1729	1-216-451-11	METAL OXIDE	120	5%	2W	F
R1731	1-249-420-11	CARBON	1.8K	5%	1/4W	
R1732	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1734	1-249-419-11	CARBON	1.5K	5%	1/4W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
	*A-1620-049-A	B BOARD, COMPLETE *****************				
		< CAPACITOR >				
C1301	1-164-232-11	CERAMIC CHIP	0.01MF	10%		50V
C1302	1-126-101-11	ELECT	100MF	20%		16V

REF.NO.	PART NO.	DESCRIPTION		REMARK
C1303	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1304	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1305	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C1306	1-163-109-00	CERAMIC CHIP 47PF	5%	50V
C1307	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1308	1-163-101-00	CERAMIC CHIP 22PF	5%	50V
C1309	1-163-101-00	CERAMIC CHIP 22PF	5%	50V
C1310	1-126-101-11	ELECT 100MF	20%	16V
C1311	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1312	1-163-133-00	CERAMIC CHIP 470PF	5%	50V
C1313	1-104-792-51	ELECT 33MF	20%	16V
C1314	1-126-101-11	ELECT 100MF	20%	16V
C1315	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1316	1-126-101-11	ELECT 100MF	20%	16V
C1317	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1318	1-124-477-11	ELECT 47MF	20%	16V
C1319	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1320	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C1321	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1322	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1323	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1324	1-126-101-11	ELECT 100MF	20%	16V
C1325	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1326	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1327	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1328	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1329	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1330	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1331	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1332	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C1333	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V

< CONNECTOR >

CN0302	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P

< DIODE >

D1301	8-719-914-43	DIODE DAN202K

< FILTER >

FL1301	1-239-550-41	FILTER, LOW PASS
FL1302	1-239-550-41	FILTER, LOW PASS
FL1303	1-239-550-41	FILTER, LOW PASS
FL1304	1-236-164-11	ENCAPSULATED COMPONENT

< IC >

IC1301	8-752-357-88	IC CXD2024Q-TL

< COIL >

L1301	1-408-405-00	INDUCTOR	4.7UH
L1302	1-408-403-00	INDUCTOR	3.3UH
L1303	1-408-405-00	INDUCTOR	4.7UH
L1304	1-408-405-00	INDUCTOR	4.7UH

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION
Q1301	8-729-216-22	TRANSISTOR 2SA1162-G
Q1302	8-729-216-22	TRANSISTOR 2SA1162-G
Q1303	8-729-216-22	TRANSISTOR 2SA1162-G
Q1304	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1305	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1306	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q1307	8-729-216-22	TRANSISTOR 2SA1162-G
Q1308	8-729-216-22	TRANSISTOR 2SA1162-G
Q1310	8-729-216-22	TRANSISTOR 2SA1162-G

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1301	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R1302	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R1303	1-216-043-00	METAL GLAZE	560	5%	1/10W
R1304	1-216-043-00	METAL GLAZE	560	5%	1/10W
R1305	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R1306	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1307	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R1308	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R1309	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R1310	1-216-295-91	METAL GLAZE	0	5%	1/10W
R1311	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1312	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R1313	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R1314	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1315	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1316	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R1317	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R1318	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R1319	1-216-043-00	METAL GLAZE	560	5%	1/10W
R1320	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R1321	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1322	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1324	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R1325	1-216-043-00	METAL GLAZE	560	5%	1/10W
R1326	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R1327	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1330	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R1331	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R1332	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W
R1333	1-216-666-11	METAL CHIP	4.3K	0.50%	1/10W
R1334	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R1335	1-216-637-11	METAL CHIP	270	0.50%	1/10W
R1336	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R1337	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1338	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R1339	1-216-295-91	METAL GLAZE	0	5%	1/10W
R1342	1-216-295-91	METAL GLAZE	0	5%	1/10W
R1343	1-216-035-00	METAL GLAZE	270	5%	1/10W

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*A-1622-006-A P1 BOARD, COMPLETE

****

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION		REMARK
C1401	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1402	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1403	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C1404	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C1405	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C1406	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C1407	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1408	1-164-182-11	CERAMIC CHIP 0.0033MF	10%	50V
C1409	1-124-903-11	ELECT 1MF	20%	50V
C1410	1-163-038-00	CERAMIC CHIP 0.1MF		25V

P1

REF.NO.	PART NO.	DESCRIPTION		REMARK
C1411	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1412	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1414	1-163-121-00	CERAMIC CHIP 150PF	5%	50V
C1416	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C1417	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C1419	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1420	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1421	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1422	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1423	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1424	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1425	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1426	1-163-124-00	CERAMIC CHIP 200PF	5%	50V
C1427	1-124-916-11	ELECT 22MF	20%	50V
C1428	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1430	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1431	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1432	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1433	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1434	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1435	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1437	1-164-343-11	CERAMIC CHIP 0.056MF	10%	25V
C1438	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C1439	1-163-243-11	CERAMIC CHIP 47PF	5%	50V
C1440	1-163-245-11	CERAMIC CHIP 56PF	5%	50V
C1441	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1442	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1443	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C1444	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1445	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1446	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1447	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1448	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C1449	1-163-257-11	CERAMIC CHIP 180PF	5%	50V
C1450	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1451	1-163-007-11	CERAMIC CHIP 680PF	10%	50V
C1452	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1453	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1454	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1455	1-163-133-00	CERAMIC CHIP 470PF	5%	50V
C1456	1-163-133-00	CERAMIC CHIP 470PF	5%	50V
C1457	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1458	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C1459	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C1460	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C1461	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1462	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1463	1-126-101-11	ELECT 100MF	20%	16V
C1464	1-126-101-11	ELECT 100MF	20%	16V
C1465	1-126-101-11	ELECT 100MF	20%	16V
C1466	1-126-101-11	ELECT 100MF	20%	16V
C1467	1-126-101-11	ELECT 100MF	20%	16V
C1468	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C1469	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C1471	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1472	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1473	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1481	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C1491	1-163-251-11	CERAMIC CHIP 100PF	5%	50V

REF.NO.	PART NO.	DESCRIPTION	REMARK
		< CONNECTOR >	
CN1514	*1-568-879-11	PIN, CONNECTOR 4P	
CN1515	*1-564-516-11	PLUG, CONNECTOR 13P	
CN1516	*1-568-879-11	PIN, CONNECTOR 4P	
CN1538	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	
		< DIODE >	
D1401	8-719-401-41	DIODE MA3051L-TX	
D1403	8-719-914-43	DIODE DAN202K	
D1404	8-719-914-42	DIODE DA204K	
D1405	8-719-914-42	DIODE DA204K	
		< FILTER >	
FL1403	1-236-071-11	ENCAPSULATED COMPONENT	
FL1404	1-236-071-11	ENCAPSULATED COMPONENT	
FL1405	1-236-071-11	ENCAPSULATED COMPONENT	
FL1406	1-236-071-11	ENCAPSULATED COMPONENT	
FL1407	1-236-071-11	ENCAPSULATED COMPONENT	
FL1408	1-236-071-11	ENCAPSULATED COMPONENT	
		< IC >	
IC1401	8-759-073-16	IC TDA9160/N2	
IC1402	8-759-086-97	IC TDA4661T/V2	
IC1403	8-759-248-15	IC SDA9187-2XGEG	
IC1404	8-759-192-90	IC SDA9188-3XGEG	
IC1405	8-759-248-91	IC SDA9086-5	
IC1406	8-759-183-36	IC TDA8443B	
IC1410	8-759-037-45	IC MC78L08ACPRP	
IC1411	8-759-708-05	IC NJM78L05A	
		< COIL >	
L1401	1-408-418-00	INDUCTOR 56UH	
L1405	1-408-407-00	INDUCTOR 6.8UH	
L1406	1-408-407-00	INDUCTOR 6.8UH	
		< TRANSISTOR >	
Q1401	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1402	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1403	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1404	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1405	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1406	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1407	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1408	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1409	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1413	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1414	8-729-900-53	TRANSISTOR DTC114EK	
Q1416	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1417	8-729-900-53	TRANSISTOR DTC114EK	
Q1418	8-729-900-53	TRANSISTOR DTC114EK	
Q1419	8-729-900-53	TRANSISTOR DTC114EK	
Q1421	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1422	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1425	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1426	8-729-900-53	TRANSISTOR DTC114EK	
Q1430	8-729-900-53	TRANSISTOR DTC114EK	
Q1431	8-729-901-04	TRANSISTOR DTA114EK	

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

P1 **F1** **F2**

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR1401	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R1401	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1402	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1404	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1405	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1406	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1407	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1408	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1410	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1411	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1412	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1413	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1414	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1415	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1416	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1417	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1418	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1419	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R1421	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1422	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1424	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1425	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1426	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1427	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1429	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1430	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1431	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1434	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1435	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1436	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1437	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R1438	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1439	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1441	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1442	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1443	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1444	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1445	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1446	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1449	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1450	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1453	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1454	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1455	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1456	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1457	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1458	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1462	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1463	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1464	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1465	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1466	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R1468	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1469	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1471	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1481	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1483	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1484	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1485	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1486	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1487	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1493	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1494	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1495	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1496	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1497	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1498	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1499	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	

< CRYSTAL >

REF.NO.	PART NO.	DESCRIPTION	REMARK
X1401	1-567-505-11	OSCILLATOR, CRYSTAL	
X1402	1-567-504-11	OSCILLATOR, CRYSTAL	

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*1-648-312-12 F1 BOARD
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< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN0003	⚠ *1-580-844-11	PIN, CONNECTOR (POWER)	
CN0831	⚠ *1-695-292-11	PIN, CONNECTOR (POWER)	

< FUSE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
F651	⚠ 1-576-232-21	FUSE (H.B.C.) 5A/250V	
	1-533-230-11	HOLDER, FUSE (F651)	

< SWITCH >

REF.NO.	PART NO.	DESCRIPTION	REMARK
S651	⚠ 1-571-433-11	SWITCH, PUSH (AC POWER)	

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*A-1624-022-A F2 BOARD, COMPLETE (KV-S3431A/S3431D)
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*A-1624-040-A F2 BOARD, COMPLETE (KV-S3431B/S3433E/
****************** S3431K/S3432U)

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C661	⚠ 1-136-519-12	FILM	0.47MF	20%	300V
C662	⚠ 1-136-518-12	FILM	0.33MF	20%	300V
C664	⚠ 1-164-246-61	CERAMIC	0.0022MF	20%	400V
C666	1-124-920-11	ELECT	330MF	20%	50V
C667	1-126-337-11	ELECT	22MF	20%	50V
C672	⚠ 1-161-964-91	CERAMIC	0.0047MF		250V
C673	⚠ 1-161-964-91	CERAMIC	0.0047MF		250V
C674	1-125-555-11	ELECT	330MF	20%	400V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN0005	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN0006	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN0007	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN0924	*1-568-878-51	PIN, CONNECTOR 3P	
CN0925	*1-695-294-11	PIN, CONNECTOR (PC BOARD) 6P	
CN0929	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN0931	⚠ *1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D661	8-719-901-33	DIODE 1SS133	
D663	8-719-510-53	DIODE D4SB60L	
D664	8-719-109-89	DIODE RD5.6ESB2	

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

F2 **A4**

REF.NO.		PART NO.	DESCRIPTION				REMARK
			< TRANSFORMER >				
LF661	⚠	1-424-436-11	TRANSFORMER, LINE FILTER				
LF662	⚠	1-424-436-11	TRANSFORMER, LINE FILTER (KV-S3431A/S3431D)				
			< TRANSISTOR >				
Q661		8-729-920-74	TRANSISTOR 2SC2412K-QR				
			< RESISTOR >				
R663	⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R664	⚠	1-205-998-11	WIREWOUND	1	5%	10W	
R665	⚠	1-218-265-11	METAL	8.2M	5%	1W	
R666		1-249-405-11	CARBON	100	5%	1/4W	F
R667		1-249-430-11	CARBON	12K	5%	1/4W	
R668		1-249-436-11	CARBON	39K	5%	1/4W	
R669	⚠	1-202-968-11	WIREWOUND	1.2	5%	10W	
R670	⚠	1-205-998-11	WIREWOUND	1	5%	10W	
R671		1-249-417-11	CARBON	1K	5%	1/4W	F
			< RELAY >				
RY661	⚠	1-515-720-31	RELAY				
			< THERMISTOR >				
THP661	⚠	1-809-827-11	THERMISTOR, POSITIVE				

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		*A-1630-233-A	A4 BOARD, COMPLETE (KV-S3431A/S3431B/ ****************** S3431D/S3431K)				
		*A-1630-236-A	A4 BOARD, COMPLETE (KV-S3433E) ******************				
		*A-1630-239-A	A4 BOARD, COMPLETE (KV-S3432U) ******************				
			< FILTER >				
CF1101		1-409-333-00	TRAP, CERAMIC (6.0MHZ) (KV-S3432U)				
CF1102		1-404-134-00	TRAP, CERAMIC (5.5MHZ) (KV-S3433E)				
BP1101		1-236-238-11	FILTER, BANS PASS (KV-S3432U)				
		1-239-047-11	FILTER, BAND PASS (KV-S3433E)				
			< CAPACITOR >				
			< C1101 - C1159 (KV-S3433E/S3432U) ONLY >				
C1101		1-126-101-11	ELECT	100MF	20%	16V	
C1102		1-126-101-11	ELECT	100MF	20%	16V	
C1103		1-163-077-91	CERAMIC CHIP	0.1MF		50V	
C1104		1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V	
C1105		1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V	
C1106		1-163-383-11	CERAMIC CHIP	180PF	5%	50V	
C1107		1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1108		1-163-059-00	CERAMIC CHIP	0.01MF		50V	
C1109		1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C1110		1-164-336-11	CERAMIC CHIP	0.33MF		25V	
C1111		1-163-099-11	CERAMIC CHIP	0.001MF	10%	50V	
C1112		1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1113		1-124-477-11	ELECT	47MF	20%	16V	
C1114		1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1115		1-124-477-11	ELECT	47MF	20%	16V	
C1116		1-106-228-00	MYLAR	0.022MF	10%	100V	

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1117	1-163-081-00	CERAMIC CHIP	0.22MF		25V	
C1118	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C1119	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C1120	1-163-193-00	CERAMIC CHIP	330PF	5%	50V	
C1121	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C1122	1-163-081-00	CERAMOC CHIP	0.22MF		25V	
C1123	1-106-228-00	MYLAR	0.22MF	10%	100V	
C1124	1-124-477-11	ELECT	47MF	20%	16V	
C1125	1-124-477-11	ELECT	47MF	20%	16V	
C1126	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V	
C1127	1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1128	1-124-477-11	ELECT	47MF	20%	16V	
C1129	1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1130	1-163-205-00	CERAMIC CHIP	0.001MF	10%	50V	
C1131	1-163-059-00	CERAMIC CHIP	0.01MF		50V	
C1132	1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1133	1-124-907-11	ELECT	10MF	20%	50V	
C1134	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1135	1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1136	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C1137	1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1138	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C1139	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C1140	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C1141	1-163-205-00	CERAMIC CHIP	0.001MF	10%	50V	
C1142	1-163-057-00	CERAMIC CHIP	0.0068MF		50V	
C1143	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1144	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C1145	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C1146	1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1147	1-124-477-11	ELECT	47MF	20%	16V	
C1148	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C1149	1-124-477-11	ELECT	47MF	20%	16V	
C1150	1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1151	1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1152	1-124-477-11	ELECT	47MF	20%	16V	
C1153	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V	
C1154	1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1155	1-124-477-11	ELECT	47MF	20%	16V	
C1156	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1157	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1158	1-163-038-11	CERAMIC CHIP	0.1MF		25V	
C1159	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	(KV-S3432U)
C1203	1-124-927-11	ELECT	4.7MF	20%	50V	
C1204	1-124-927-11	ELECT	4.7MF	20%	50V	
C1205	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C1206	1-164-004-11	CERAMIC CHIP	0.0027MF	10%	50V	
C1207	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V	
C1208	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V	
C1209	1-124-927-11	ELECT	4.7MF	20%	50V	
C1210	1-124-907-11	ELECT	10MF	20%	50V	
C1211	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C1212	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C1213	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1214	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	
C1215	1-124-910-11	ELECT	47MF	20%	50V	
C1216	1-124-927-11	ELECT	4.7MF	20%	50V	
C1217	1-124-927-11	ELECT	4.7MF	20%	50V	
C1218	1-124-927-11	ELECT	4.7MF	20%	50V	

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1219	1-124-927-11	ELECT 4.7MF 20%	50V
C1220	1-124-927-11	ELECT 4.7MF 20%	50V
C1221	1-124-927-11	ELECT 4.7MF 20%	50V
C1222	1-163-014-00	CERAMIC CHIP 0.0027MF 10%	50V
C1223	1-163-014-00	CERAMIC CHIP 0.0027MF 10%	50V
C1224	1-124-927-11	ELECT 4.7MF 20%	50V
C1225	1-124-927-11	ELECT 4.7MF 20%	50V
C1226	1-124-910-11	ELECT 47MF 20%	50V
C1227	1-163-019-00	CERAMIC CHIP 0.0068MF 10%	50V
C1228	1-163-019-00	CERAMIC CHIP 0.0068MF 10%	50V
C1230	1-126-101-11	ELECT 100MF 20%	16V
C1231	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C1232	1-126-101-11	ELECT 100MF 20%	16V
C1233	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C1234	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C1235	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C1236	1-124-927-11	ELECT 4.7MF 20%	50V
C1237	1-124-927-11	ELECT 4.7MF 20%	50V
C1245	1-163-131-00	CERAMIC CHIP 390PF 10%	50V
C1246	1-163-131-00	CERAMIC CHIP 390PF 10%	50V
C1247	1-163-131-00	CERAMIC CHIP 390PF 10%	50V
C1251	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C1252	1-163-010-11	CERAMIC CHIP 0.0012MF 10%	50V
C1253	1-163-014-00	CERAMIC CHIP 0.0027MF 10%	50V
C1254	1-163-014-00	CERAMIC CHIP 0.0027MF 10%	50V
C1255	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C1256	1-163-022-00	CERAMIC CHIP 0.012MF 10%	50V
C1257	1-163-986-00	CERAMIC CHIP 0.027MF 10%	25V
C1258	1-163-986-00	CERAMIC CHIP 0.027MF 10%	25V
C1259	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1260	1-164-348-11	CERAMIC CHIP 0.12MF 10%	25V
C1261	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C1262	1-163-010-11	CERAMIC CHIP 0.0012MF 10%	50V
C1263	1-163-014-00	CERAMIC CHIP 0.0027MF 10%	50V
C1264	1-163-014-00	CERAMIC CHIP 0.0027MF 10%	50V
C1265	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C1266	1-163-022-00	CERAMIC CHIP 0.012MF 10%	50V
C1267	1-163-986-00	CERAMIC CHIP 0.027MF 10%	25V
C1268	1-163-986-00	CERAMIC CHIP 0.027MF 10%	25V
C1269	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1270	1-164-348-11	CERAMIC CHIP 0.12MF 10%	25V
C1271	1-124-916-11	ELECT 22MF 20%	50V
C1272	1-124-910-11	ELECT 47MF 20%	50V
C1273	1-124-907-11	ELECT 10MF 20%	50V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN0201	1-695-300-11	CONNECTOR, BOARD TO BOARD 20P	
CN0202	*1-564-508-11	PLUG, CONNECTOR 5P	
CN0203	*1-564-509-11	PLUG, CONNECTOR 6P	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1101	8-719-914-44	DIODE DAP202K (KV-S3433E/S3432U)	
D1102	8-719-027-70	DIODE 1SV217-TPH3 (KV-S3433E/S3432U)	
D1103	8-719-820-71	DIODE 1SV214 (KV-S3433E/S3432U)	
D1201	8-719-914-43	DIODE DAN202K	
D1202	8-719-914-42	DIODE DA204K	
D1203	8-719-914-42	DIODE DA204K	

< FERRITE BEAD >

< (KV-S3433E/S3432U) ONLY >

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB1101	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB1102	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB1103	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB1104	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB1105	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	

< IC >

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1101	8-759-511-88	IC TDA8732 (KV-S3433E/S3432U)	
IC1102	8-759-184-28	IC SAA7282-ZP (KV-S3433E/S3432U)	
IC1201	8-759-145-58	IC UPC4558C	
IC1202	8-759-145-58	IC UPC4558C	
IC1203	8-759-145-58	IC UPC4558C	
IC1204	8-759-503-59	IC YM7128	
IC1251	8-759-257-64	IC TDA7317	

< COIL >

REF.NO.	PART NO.	DESCRIPTION	REMARK
L1101	1-408-405-00	INDUCTOR 4.7UH	(KV-S3433E/S3432U)
L1102	1-408-405-00	INDUCTOR 4.7UH	(KV-S3433E/S3432U)
L1103	1-410-119-11	INDUCTOR 1MMH	(KV-S3433E/S3432U)
L1104	1-410-119-11	INDUCTOR 1MMH	(KV-S3433E/S3432U)
L1105	1-408-411-00	INDUCTOR 15UH	(KV-S3432U)
L1201	1-408-421-00	INDUCTOR 100UH	
L1202	1-408-421-00	INDUCTOR 100UH	
L1251	1-408-421-00	INDUCTOR 100UH	

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1101	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-S3433E/ S3432U)
Q1102	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-S3433E/ S3432U)
Q1103	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-S3433E/ S3432U)
Q1104	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-S3433E/ S3432U)
Q1105	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-S3433E/ S3432U)
Q1106	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-S3433E/ S3432U)
Q1107	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-S3433E/ S3432U)
Q1108	8-729-920-74	TRANSISTOR 2SC2412K-QR	(KV-S3433E/ S3432U)
Q1201	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1202	8-729-920-74	TRANSISTOR 2SC2412K-QR	

< RESISTOR >

< R1101 - R1154 (KV-S3433E/S3432U) ONLY >

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR1101	1-216-296-00	METAL GLAZE 0 5% 1/8W	(KV-S3433E)
JR1102	1-216-296-00	METAL GLAZE 0 5% 1/8W	(KV-S3433E/S3432U)
JR1103	1-216-296-00	METAL GLAZE 0 5% 1/8W	(KV-S3433E/S3432U)
JR1104	1-216-295-00	METAL GLAZE 0 5% 1/10W	(KV-S3433E/S3432U)
JR1201	1-216-295-00	METAL GLAZE 0 5% 1/10W	

A4

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1101	1-216-188-00	METAL GLAZE 390 5% 1/8W	
R1102	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1103	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1104	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1105	1-216-005-00	METAL GLAZE 15 5% 1/10W	
R1106	1-216-185-11	METAL GLAZE 300 5% 1/8W	
R1107	1-216-042-00	METAL GLAZE 510 5% 1/10W	
R1108	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R1109	1-216-202-00	METAL GLAZE 1.5K 5% 1/8W	
R1110	1-216-196-00	METAL GLAZE 820 5% 1/8W	
R1111	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1112	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R1113	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R1114	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R1115	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R1116	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1117	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1118	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1119	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1120	1-216-232-00	METAL GLAZE 27K 5% 1/8W	
R1121	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1122	1-216-158-00	METAL GLAZE 22 5% 1/8W	
R1123	1-216-158-00	METAL GLAZE 22 5% 1/8W	
R1124	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1125	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1126	1-216-218-00	METAL GLAZE 6.8K 5% 1/8W	
R1127	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1128	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1129	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1130	1-216-246-91	METAL GLAZE 100K 5% 1/8W	
R1131	1-216-218-00	METAL GLAZE 6.8K 5% 1/8W	
R1132	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1133	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1134	1-216-212-00	METAL GLAZE 3.9K 5% 1/8W	
R1135	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1136	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1137	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R1138	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1139	1-216-005-00	METAL GLAZE 15 5% 1/10W	
R1140	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R1141	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R1142	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1143	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1144	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1145	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R1146	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1147	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1148	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1149	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R1150	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1151	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1152	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1153	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1154	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1201	1-216-103-91	METAL GLAZE 180K 5% 1/10W	
R1202	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R1203	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1204	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R1205	1-216-103-91	METAL GLAZE 180K 5% 1/10W	
R1206	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R1207	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1208	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R1209	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R1210	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1211	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1212	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1213	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1214	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1215	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1216	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1217	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1218	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R1219	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1220	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1221	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1222	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1223	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1224	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1225	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1226	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1227	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1228	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1229	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1230	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1231	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1232	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1233	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1234	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1235	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1236	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1237	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1238	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1240	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1241	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1242	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1245	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1246	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1247	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1251	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1252	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1253	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1254	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1255	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1256	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1257	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1258	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1259	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1260	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1261	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1262	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1263	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1264	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1265	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1266	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1267	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1268	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1269	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R1270	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1271	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1272	1-216-025-00	METAL GLAZE 100 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1273	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1274	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1275	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1276	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1277	1-216-025-00	METAL GLAZE 100 5%	1/10W
		< CRYSTAL >	
X1101	1-579-689-21	VIBRATOR, CRYSTAL	(KV-S3432U/S3433E)
X1102	1-579-283-11	VIBRATOR, CRYSTAL	(KV-S3432U)
	1-579-282-21	VIBRATOR, CRYSTAL	(KV-S3433E)
X1201	1-567-307-11	OSCILLATOR, CRYSTAL	(KV-S3432U/S3433E)

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1632-205-A	A BOARD, COMPLETE *****************	(KV-S3431A/S3431D/ S3431K)
	*A-1632-206-A	A BOARD, COMPLETE *****************	(KV-S3431B)
	*A-1632-208-A	A BOARD, COMPLETE *****************	(KV-S3433E)
	*A-1632-210-A	A BOARD, COMPLETE *****************	(KV-S3432U)
	4-200-001-01	HOLDER, IC	
	4-201-023-01	SPACER, INSULATING	
	4-812-134-00	RIVET NYLON, 3.5	
		< CAPACITOR >	
C071	1-126-108-11	ELECT 56MF 20%	16V
C072	1-124-120-11	ELECT 220MF 20%	16V
C074	1-163-001-11	CERAMIC CHIP 220PF 10%	50V
C102	1-126-103-11	ELECT 470MF 20%	16V
C103	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C104	1-124-477-11	ELECT 47MF 20%	16V
C105	1-124-916-11	ELECT 22MF 20%	50V
C106	1-124-927-11	ELECT 4.7MF 20%	50V
C110	1-124-478-11	ELECT 100MF 20%	25V
C120	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C201	1-130-489-00	FILM 0.033MF 5%	50V
C202	1-130-489-00	FILM 0.033MF 5%	50V
C203	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C204	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C205	1-124-907-11	ELECT 10MF 20%	50V
C206	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V
C207	1-137-613-11	FILM 0.0018MF 2%	100V
C208	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C209	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C210	1-164-005-11	CERAMIC CHIP 0.47MF	25V
C213	1-163-023-00	CERAMIC CHIP 0.015MF 10%	50V
C214	1-163-023-00	CERAMIC CHIP 0.015MF 10%	50V
C215	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C216	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C217	1-124-925-11	ELECT 2.2MF 20%	50V
C218	1-124-925-11	ELECT 2.2MF 20%	50V
C219	1-163-011-11	CERAMIC CHIP 0.0015MF 10%	50V
C220	1-163-011-11	CERAMIC CHIP 0.0015MF 10%	50V
C221	1-124-925-11	ELECT 2.2MF 20%	50V
C222	1-124-925-11	ELECT 2.2MF 20%	50V
C223	1-136-177-00	FILM 1MF 5%	50V
C224	1-136-177-00	FILM 1MF 5%	50V
C225	1-164-182-11	CERAMIC CHIP 0.0033MF 10%	50V
C226	1-163-007-11	CERAMIC CHIP 680PF 10%	50V
C227	1-124-907-11	ELECT 10MF 20%	50V
C228	1-124-907-11	ELECT 10MF 20%	50V
C229	1-124-478-11	ELECT 100MF 20%	25V
C230	1-124-478-11	ELECT 100MF 20%	25V
C231	1-164-346-11	CERAMIC CHIP 1MF	16V
C232	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C233	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C234	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V
C235	1-130-772-00	FILM 0.22MF 5%	63V
C236	1-124-618-11	ELECT 2200MF 20%	35V
C237	1-124-618-11	ELECT 2200MF 20%	35V
C238	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V
C239	1-130-772-00	FILM 0.22MF 5%	63V
C240	1-124-916-11	ELECT 22MF 20%	50V
C241	1-124-916-11	ELECT 22MF 20%	50V
C242	1-124-903-11	ELECT 1MF 20%	50V
C244	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C248	1-163-185-00	CERAMIC CHIP 150PF 5%	50V
C249	1-163-129-00	CERAMIC CHIP 330PF 5%	50V
C251	1-124-282-00	ELECT 22MF 20%	16V
C254	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C255	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C256	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C257	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C299	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C301	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C302	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C303	1-164-337-11	CERAMIC CHIP 2.2MF	16V
C304	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C305	1-163-096-00	CERAMIC CHIP 13PF 5%	50V
C306	1-163-097-00	CERAMIC CHIP 15PF 5%	50V
C307	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C308	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C309	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C310	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C311	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C312	1-124-477-11	ELECT 47MF 20%	16V
C313	1-163-077-91	CERAMIC CHIP 0.1MF	50V
C314	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C315	1-124-477-11	ELECT 47MF 20%	16V
C316	1-163-077-91	CERAMIC CHIP 0.1MF	50V
C317	1-163-103-00	CERAMIC CHIP 27PF 5%	50V
C318	1-163-103-00	CERAMIC CHIP 27PF 5%	50V
C319	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C320	1-124-477-11	ELECT 47MF 20%	16V
C321	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C322	1-124-916-11	ELECT 22MF 20%	50V
C323	1-163-135-00	CERAMIC CHIP 560PF 5%	50V
C324	1-124-477-11	ELECT 47MF 20%	16V
C325	1-163-111-00	CERAMIC CHIP 56PF 5%	50V
C341	1-163-077-00	CERAMIC CHIP 0.1MF 10%	25V
C342	1-163-077-00	CERAMIC CHIP 0.1MF 10%	25V
C343	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C344	1-162-638-11	CERAMIC CHIP 1MF	16V
C345	1-164-346-11	CERAMIC CHIP 1MF	16V
C346	1-124-916-11	ELECT 22MF 20%	50V
C347	1-162-638-11	CERAMIC CHIP 1MF	16V
C348	1-164-346-11	CERAMIC CHIP 1MF	16V
C349	1-164-346-11	CERAMIC CHIP 1MF	16V

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C350	1-124-907-11	ELECT	10MF	20%	50V
C351	1-124-443-00	ELECT	100MF	20%	10V
C353	1-164-346-11	CERAMIC CHIP	1MF		16V
C354	1-164-346-11	CERAMIC CHIP	1MF		16V
C355	1-162-638-11	CERAMIC CHIP	1MF		16V
C356	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C357	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C358	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C359	1-124-907-11	ELECT	10MF	20%	50V
C361	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C362	1-130-772-00	FILM	0.22MF	5%	63V
C363	1-124-907-11	ELECT	10MF	20%	50V
C365	1-124-120-11	ELECT	220MF	20%	16V
C366	1-124-903-11	ELECT	1MF	20%	50V
C401	1-164-005-11	CERAMIC CHIP	0.47MF		16V
C402	1-104-792-51	ELECT	33MF	20%	16V
C403	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C411	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C412	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C421	1-124-477-11	ELECT	47MF	20%	16V
C422	1-124-477-11	ELECT	47MF	20%	16V
C423	1-101-004-00	CERAMIC	0.01MF		50V
C424	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C425	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C426	1-124-477-11	ELECT	47MF	20%	16V
C427	1-164-346-11	CERAMIC CHIP	1MF		16V
C428	1-164-346-11	CERAMIC CHIP	1MF		16V
C429	1-124-119-00	ELECT	330MF	20%	16V
C574	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C575	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C576	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V
C581	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C582	1-124-916-11	ELECT	22MF	20%	50V
C583	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C585	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C586	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C587	1-124-903-11	ELECT	1MF	20%	50V
C588	1-164-346-11	CERAMIC CHIP	1MF		16V
C589	1-124-478-11	ELECT	100MF	20%	25V
C590	1-124-916-11	ELECT	22MF	20%	50V
C591	1-124-925-11	ELECT	2.2MF	20%	50V
C592	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C593	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C595	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C599	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C644	1-124-916-11	ELECT	22MF	20%	50V
C681	1-124-478-11	ELECT	100MF	20%	25V
C682	1-126-516-11	ELECT	120MF	20%	16V
C683	1-124-478-11	ELECT	100MF	20%	25V
C685	1-124-478-11	ELECT	100MF	20%	25V
C686	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C687	1-124-916-11	ELECT	22MF	20%	50V

< FILTER >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CF581	1-577-611-11	OSCILALTOR, CERAMIC	

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN0001	*1-568-880-51	PIN, CONNECTOR 5P	
CN0102	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P	
CN0103	1-564-511-11	PLUG, CONNECTOR 8P	
CN0104	1-564-511-11	PLUG, CONNECTOR 8P	
CN0105	*1-568-880-51	PIN, CONNECTOR 5P	
CN0106	*1-568-880-51	PIN, CONNECTOR 5P	
CN0107	*1-568-879-11	PIN, CONNECTOR 4P	
CN0108	*1-568-878-51	PIN, CONNECTOR 3P	
CN0109	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN0110	*1-568-882-51	PIN, CONNECTOR 7P	
CN0113	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN0114	*1-568-879-11	PIN, CONNECTOR 4P	
CN0115	*1-564-516-11	PLUG, CONNECTOR 13P	
CN0116	*1-568-879-11	PIN, CONNECTOR 4P	
CN0119	*1-568-879-11	PIN, CONNECTOR 4P	
CN0127	*1-564-509-11	PLUG, CONNECTOR 6P	
CN5108	*1-564-513-11	PLUG, CONNECTOR 10P	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D068	8-719-914-44	DIODE DAP202K	
D069	8-719-914-44	DIODE DAP202K	
D071	8-719-109-89	DIODE RD5.6ESB2	
D073	8-719-109-89	DIODE RD5.6ESB2	
D075	8-719-914-43	DIODE DAN202K	
D077	8-719-914-43	DIODE DAN202K	
D078	8-719-109-89	DIODE RD5.6ESB2	
D079	8-719-109-89	DIODE RD5.6ESB2	
D101	8-719-982-27	DIODE MTZJ-33C	
D206	8-719-914-43	DIODE DAN202K	
D207	8-719-921-89	DIODE MTZJ-13C	
D208	8-719-901-33	DIODE 1SS133	
D209	8-719-901-33	DIODE 1SS133	
D210	8-719-901-33	DIODE 1SS133	
D211	8-719-901-33	DIODE 1SS133	
D212	8-719-901-33	DIODE 1SS133	
D213	8-719-914-43	DIODE DAN202K	
D214	8-719-914-42	DIODE DA204K	
D215	8-719-914-43	DIODE DAN202K (KV-S3431B)	
D216	8-719-914-43	DIODE DAN202K (KV-S3431B)	
D301	8-719-914-43	DIODE DAN202K	
D302	8-719-914-44	DIODE DAP202K	
D304	8-719-109-89	DIODE RD5.6ESB2	
D305	8-719-914-43	DIODE DAN202K	
D306	8-719-914-43	DIODE DAN202K	
D307	8-719-914-43	DIODE DAN202K	
D308	8-719-914-42	DIODE DA204K	
D311	8-719-914-42	DIODE DA204K	
D314	8-719-914-43	DIODE DAN202K	
D381	8-719-110-03	DIODE DIODE RD7.5ESB2	
D401	8-719-921-69	DIODE MTZJ-9.1	
D403	8-719-921-69	DIODE MTZJ-9.1	
D405	8-719-921-69	DIODE MTZJ-9.1	
D406	8-719-921-69	DIODE MTZJ-9.1	
D407	8-719-921-69	DIODE MTZJ-9.1	
D571	8-719-914-42	DIODE DA204K	
D681	8-719-921-75	DIODE MTZJ-10B	
D683	8-719-914-44	DIODE DAP202K	

< IC >

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC072	8-759-184-27	IC ST24C16CB1	
IC201	8-759-266-64	IC TDA6612-5 (KV-S3431A/S3431B/ S3431D/S3433E/S3431K)	
	8-759-266-65	IC TDA6622-5 (KV-S3432U)	

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC202	8-759-502-21	IC TDA2822M	
IC251	8-759-072-99	IC TDA2052	
IC261	8-759-072-99	IC TDA2052	
IC301	8-759-189-90	IC TDA9145/N2B	
IC302	8-759-084-91	IC TDA4661/V2	
IC304	8-752-056-54	IC CXA1587S	
IC401	8-752-068-46	IC CXA1855S (KV-S3431A/S3431D/ S3433E/S3431K/S3432U)	
	8-752-067-28	IC CXA1545AS (KV-S3431B)	
IC402	8-759-073-00	IC TEA2114	
IC681	8-759-072-98	IC TDA8138A	
	4-202-373-01	SPRING, IC (IC681)	
IC684	8-759-701-59	IC NJM78M09FA	
IC685	8-759-510-52	IC TEA7605	

< IF BLOCK >

REF.NO.	PART NO.	DESCRIPTION	REMARK
IFB101	1-466-733-11	IF BLOCK (IFH-389) (KV-S3431A/S3431D/ S3433E/S3431K)	
	1-466-735-11	IF BLOCK (IFH-389F) (KV-S3431B)	
	1-466-734-11	IF BLOCK (IFH-395) (KV-S3432U)	

< COIL >

REF.NO.	PART NO.	DESCRIPTION	REMARK
L101	1-412-546-41	INDUCTOR 560UH	
L102	1-408-413-00	INDUCTOR 22UH	
L201	1-407-500-00	INDUCTOR 4.7MMH	
L306	1-408-405-00	INDUCTOR 4.7UH	
L307	1-408-405-00	INDUCTOR 4.7UH	
L309	1-408-411-00	INDUCTOR 15UH	
L310	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
L575	1-408-397-00	INDUCTOR 1UH	
L611	1-412-539-41	INDUCTOR 150UH	
L681	1-412-539-41	INDUCTOR 150UH	

< IC LINK >

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS681 ⚠	1-532-605-91	LINK, IC 0.4A (ICP-N15)	
PS682 ⚠	1-532-605-91	LINK, IC 0.4A (ICP-N15)	

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q071	8-729-901-05	TRANSISTOR DTA124EK	
Q101	8-729-216-22	TRANSISTOR 2SA1162-G	
Q102	8-729-901-00	TRANSISTOR DTC124EK	
Q103	8-729-900-53	TRANSISTOR DTC114EK	
Q201	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q202	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q203	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q207	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q209	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q210	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q301	8-729-901-00	TRANSISTOR DTC124EK	
Q302	8-729-216-22	TRANSISTOR 2SA1162-G	
Q303	8-729-216-22	TRANSISTOR 2SA1162-G	
Q304	8-729-900-53	TRANSISTOR DTC114EK	
Q305	8-729-900-53	TRANSISTOR DTC114EK	
Q306	8-729-216-22	TRANSISTOR 2SA1162-G	
Q308	8-729-216-22	TRANSISTOR 2SA1162-G	
Q309	8-729-931-02	TRANSISTOR 2SC2413KQ	
Q311	8-729-901-06	TRANSISTOR DTA144EK	
Q312	8-729-900-53	TRANSISTOR DTC114EK	
Q313	8-729-216-22	TRANSISTOR 2SA1162-G	
Q317	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q401	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q402	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q581	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q582	8-729-216-22	TRANSISTOR 2SA1162-G	
Q583	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q610	8-729-140-97	TRANSISTOR 2SB734-34	
Q681	8-729-109-53	TRANSISTOR 2SD795A-P	
Q682	8-729-900-53	TRANSISTOR DTC114EK	

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR102	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR104	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR107	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR110	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR111	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR112	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR113	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR114	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR115	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR116	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR117	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR118	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR119	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR120	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR121	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR122	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR123	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR124	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR125	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR126	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR127	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR128	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR129	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR130	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR131	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR132	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR133	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR134	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR135	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR136	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR137	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR138	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR139	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR140	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR141	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR142	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR143	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR144	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR149	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR150	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR151	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR152	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR201	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR202	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR203	1-216-296-91	METAL GLAZE 0 5% 1/8W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
JR204	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR205	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR206	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR207	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR208	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR209	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR210	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR211	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR212	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR213	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR214	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR215	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR216	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR217	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR218	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR219	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR220	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR221	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR222	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR223	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR224	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR225	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR226	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR227	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR228	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR230	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR231	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR232	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR233	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR234	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR235	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR236	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR237	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR238	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR240	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR241	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR242	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR243	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR245	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR247	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR248	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR250	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR251	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR252	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR253	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR254	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR255	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR271	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR272	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R071	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R072	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R073	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R074	1-216-198-91	METAL GLAZE	1K	5%	1/8W	
R076	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R077	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R101	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R102	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R103	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R105	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R108	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R115	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W	
R201	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R202	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R203	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R204	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R205	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R206	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R207	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R208	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R209	1-249-377-11	CARBON	0.47	5%	1/4W	F
R210	1-247-734-11	CARBON	39	5%	1/2W	
R211	1-247-734-11	CARBON	39	5%	1/2W	
R212	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R214	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R215	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R216	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R217	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R218	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R221	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R222	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R223	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R224	1-249-433-11	CARBON	22K	5%	1/4W	
R225	1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R226	1-249-412-11	CARBON	390	5%	1/4W	
R227	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R228	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R229	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R230	1-216-246-91	METAL GLAZE	100K	5%	1/8W	
R231	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R232	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R233	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R234	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R235	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R236	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R237	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R238	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R241	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R242	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R244	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R245	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R246	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R247	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R248	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R249	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R250	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R251	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R252	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R253	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R254	1-216-252-00	METAL GLAZE	180K	5%	1/8W	
R255	1-216-252-00	METAL GLAZE	180K	5%	1/8W	
R256	1-249-409-11	CARBON	220	5%	1/4W	
R257	1-249-409-11	CARBON	220	5%	1/4W	
R258	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R259	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R260	1-216-212-00	METAL GLAZE	3.9K	5%	1/8W	
R295	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R296	1-216-037-00	METAL GLAZE	330	5%	1/10W (KV-S3431B)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R297	1-216-027-00	METAL GLAZE 120 5% 1/10W	(KV-S3431B)
R301	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R302	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R303	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R304	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R305	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R306	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R307	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R308	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R309	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R310	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R311	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R312	1-249-413-11	CARBON 470 5% 1/4W	
R313	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R314	1-249-409-11	CARBON 220 5% 1/4W	
R315	1-249-409-11	CARBON 220 5% 1/4W	
R316	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R317	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R318	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R319	1-249-413-11	CARBON 470 5% 1/4W	
R320	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R321	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R322	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R324	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R325	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R326	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R328	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R329	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R330	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R331	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R333	1-216-182-00	METAL GLAZE 220 5% 1/8W	
R334	1-216-182-00	METAL GLAZE 220 5% 1/8W	
R336	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R337	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R338	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R339	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R340	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R341	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R342	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R343	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R344	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R345	1-216-171-00	METAL GLAZE 75 5% 1/8W	
R346	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R347	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R351	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R352	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R354	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R355	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R356	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R357	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R358	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R359	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R360	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R361	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R362	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R365	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R367	1-216-296-91	METAL GLAZE 0 5% 1/8W	
R368	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R369	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R370	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R371	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R373	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R376	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R377	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R378	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R379	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W	
R380	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R381	1-216-164-00	METAL GLAZE 39 5% 1/8W	
R382	1-216-164-00	METAL GLAZE 39 5% 1/8W	
R383	1-216-164-00	METAL GLAZE 39 5% 1/8W	
R384	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R391	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R392	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R393	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R394	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R395	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R396	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R401	1-216-171-00	METAL GLAZE 75 5% 1/8W	
R402	1-216-158-00	METAL GLAZE 22 5% 1/8W	
R403	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R404	1-216-158-00	METAL GLAZE 22 5% 1/8W	
R405	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R406	1-216-158-00	METAL GLAZE 22 5% 1/8W	
R407	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R408	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R410	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R411	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R412	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R413	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R414	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R416	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R417	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R419	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R420	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R423	1-216-015-00	METAL GLAZE 39 5% 1/10W	
R424	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R425	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R426	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R427	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R428	1-249-393-11	CARBON 10 5% 1/4W	F
R572	1-216-198-91	METAL GLAZE 1K 5% 1/8W	
R574	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R575	1-216-186-00	METAL GLAZE 330 5% 1/8W	
R577	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R578	1-216-238-91	METAL GLAZE 47K 5% 1/8W	
R580	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R581	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R582	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R583	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R584	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R585	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R586	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R587	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R588	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R589	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R590	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R591	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R592	1-216-232-00	METAL GLAZE 27K 5% 1/8W	
R593	1-216-673-11	METAL CHIP 8.2K 0.50% 1/10W	

A IF (KV-S3431A/S3431D/ KV-S3433E/S3431K)

REF.NO.	PART NO.	DESCRIPTION				REMARK
R594	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R595	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R596	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R597	1-216-230-00	METAL GLAZE	22K	5%	1/8W	
R598	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R600	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R616	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R619	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R628	1-249-413-11	CARBON	470	5%	1/4W	
R632	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R681	1-216-541-00	METAL OXIDE	4.3	5%	3W	F
R682	1-249-415-11	CARBON	680	5%	1/4W	
R683	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2219	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R2220	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R2221	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R2222	1-216-174-00	METAL GLAZE	100	5%	1/8W	

< TUNER >

REF.NO.	PART NO.	DESCRIPTION
TU101	1-693-185-11	TUNER (UV916H) (KV-S3431A/S3431B/ S3431D/S3433E/S3431K)
	1-693-184-11	TUNER (U944C) (KV-S3432U)

< CRYSTAL >

REF.NO.	PART NO.	DESCRIPTION
X301	1-567-504-11	OSCILLATOR, CRYSTAL
X302	1-567-505-11	OSCILLATOR, CRYSTAL

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1-466-733-11 IF BLOCK (IFH-389) (KV-S3431A/S3431D/
****************** S3433E/S3431K)

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION				REMARK
C101	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C102	1-164-222-11	CERAMIC CHIP	0.22MF		25V	
C103	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C104	1-164-232-11	CERAMIC CHIP	0.01F	10%	50V	
C105	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C106	1-124-477-11	ELECT	47MF	20%	16V	
C107	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C108	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C109	1-164-232-11	CERAMIC CHIP	0.01F	10%	50V	
C112	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C113	1-164-101-00	CERAMIC CHIP	22PF	5%	50V	
C114	1-124-477-11	ELECT	47MF	20%	16V	
C115	1-164-232-11	CERAMIC CHIP	0.01F	10%	50V	
C116	1-164-346-11	CERAMIC CHIP	1MF		16V	
C118	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C119	1-163-369-11	CERAMIC CHIP	47PFF	5%	25V	
C121	1-163-235-11	CERAMOC CHIP	22PF	5%	50V	
C122	1-164-239-11	CERAMIC CHIP	33PF	5%	50V	
C123	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C124	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C130	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C131	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	
C133	1-124-477-11	ELECT	47MF	20%	16V	
C152	1-164-337-11	CERAMIC CHIP	2.2MF		16V	
C153	1-164-337-11	CERAMIC CHIP	2.2MF		16V	
C154	1-164-337-11	CERAMIC CHIP	2.2MF		16V	
C155	1-164-232-11	CERAMIC CHIP	0.01F	10%	50V	
C156	1-124-477-11	ELECT	47MF	20%	16V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C161	1-164-117-00	CERAMIC CHIP	100PF	5%	50V
C162	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C163	1-164-346-11	CERAMIC CHIP	1MF		16V
C164	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C165	1-164-232-11	CERAMIC CHIP	0.01F	10%	50V
C166	1-124-477-11	ELECT	47MF	20%	16V
C167	1-163-213-00	CERAMIC CHIP	0.0022MF	5%	50V
C168	1-164-346-11	CERAMIC CHIP	1MF		16V
C170	1-124-477-11	ELECT	47MF	20%	16V
C171	1-124-477-11	ELECT	47MF	20%	16V
C173	1-124-477-11	ELECT	47MF	20%	16V

< FILTER >

REF.NO.	PART NO.	DESCRIPTION
CF2	1-527-839-00	FILTER, CERAMIC
CF3	1-527-840-00	FILTER, CERAMIC
CF4	1-567-570-00	FILTER, CERAMIC
SWF1	1-579-658-11	FILTER, SAWTOOTH WAVE

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION
CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P

< TRIMMER >

REF.NO.	PART NO.	DESCRIPTION
CT1	1-404-801-11	TRAP, CERAMIC

< DIODE >

REF.NO.	PART NO.	DESCRIPTION
D161	8-719-400-18	DIODE MA152WK

< IC >

REF.NO.	PART NO.	DESCRIPTION
IC1	8-759-070-76	IC M52308SP
IC2	8-759-070-71	IC TDA9820
IC3	8-759-514-54	IC BA7046

< COIL >

REF.NO.	PART NO.	DESCRIPTION	
L101	1-408-421-00	INDUCTOR	100UH
L102	1-408-419-00	INDUCTOR	68UH
L103	1-408-419-00	INDUCTOR	68UH
L104	1-408-408-00	INDUCTOR	8.2UH
L121	1-408-413-00	INDUCTOR	22UH
L122	1-408-420-00	INDUCTOR	82UH
L142	1-408-790-00	INDUCTOR	0.56UH
L151	1-408-419-00	INDUCTOR	68UH
L161	1-408-419-00	INDUCTOR	68UH

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION
Q101	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q102	8-729-216-22	TRANSISTOR 2SA1162-G
Q121	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q122	8-729-216-22	TRANSISTOR 2SA1162-G
Q161	8-729-216-22	TRANSISTOR 2SA1162-G
Q170	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q171	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q172	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q173	8-729-920-74	TRANSISTOR 2SC2412K-QR

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION			
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR4	1-216-295-00	METAL GLAZE	0	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR7	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR8	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR9	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR11	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR14	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR16	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR18	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR19	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR20	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR21	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR23	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR24	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR25	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR29	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR30	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR33	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR38	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR39	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR40	1-216-296-00	METAL GLAZE 0 5% 1/8	
R101	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R102	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R103	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R104	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R106	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R107	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R108	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R110	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R113	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R114	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R115	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R116	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R117	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R118	1-216-117-00	METAL GLAZE 680K 5% 1/10W	
R119	1-216-240-00	METAL GLAZE 56K 5% 1/8W	
R120	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R121	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R122	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R123	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R124	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R125	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R127	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R130	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R131	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R132	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R133	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R134	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R135	1-216-198-00	METAL GLAZE 1K 5% 1/8W	
R150	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R151	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R152	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R153	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R154	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R155	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R156	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R157	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R159	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R160	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R161	1-216-755-11	METAL CHIP 130K 0.50% 1/10W	
R162	1-216-073-00	METAL GLAZE 10K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R163	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R164	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R165	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R166	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R167	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R168	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R169	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R170	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R171	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R172	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R173	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R174	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R175	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R176	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R177	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R178	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R179	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R180	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R181	1-216-037-00	METAL GLAZE 330 5% 1/10W	

< VARIABLE RESISTOR >

RV1	1-241-121-11	RES, ADJ, CARBON 4.7K	

< TRANSFORMER >

T4	1-416-017-21	COIL	
T5	1-416-018-21	COIL	

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1-466-735-11 IF BLOCK (IFH-389F) (KV-S3431B)
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< CAPACITOR >

C1	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C2	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C3	1-124-903-11	ELECT 1MF 20% 50V	
C4	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C5	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C6	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C7	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C8	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C9	1-124-916-11	ELECT 22MF 20% 25V	
C10	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C11	1-124-477-11	ELECT 47MF 20% 16V	
C13	1-163-059-00	CERAMIC CHIP 0.01MF 10% 50V	
C14	1-124-477-11	ELECT 47MF 20% 16V	
C15	1-124-903-11	ELECT 1MF 20% 50V	
C16	1-163-061-00	CERAMIC CHIP 0.015MF 10% 50V	
C17	1-162-638-11	CERAMIC CHIP 1MF 16V	
C18	1-162-638-11	CERAMIC CHIP 1MF 16V	
C19	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C20	1-124-902-00	ELECT 0.47MF 20% 50V	
C21	1-124-903-11	ELECT 1MF 20% 50V	
C22	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C23	1-124-902-00	ELECT 0.47MF 20% 50V	
C24	1-164-506-11	CERAMIC CHIP 4.7MF 16V	
C25	1-124-477-11	ELECT 47MF 20% 16V	
C26	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C27	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C28	1-124-477-11	ELECT 47MF 20% 16V	
C33	1-124-907-11	ELECT 10MF 20% 50V	

IF (KV-S3431B)

REF.NO.	PART NO.	DESCRIPTION			REMARK
C34	1-124-907-11	ELECT	10MF	20%	50V
C35	1-124-925-11	ELECT	2.2MF	20%	50V
C36	1-124-477-11	ELECT	47MF	20%	16V
C37	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C38	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C40	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C71	1-124-477-11	ELECT	47MF	20%	16V
C72	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C80	1-124-477-11	ELECT	47MF	20%	16V
C83	1-124-477-11	ELECT	47MF	20%	16V
C84	1-124-477-11	ELECT	47MF	20%	16V
C85	1-124-477-11	ELECT	47MF	20%	16V
C86	1-124-477-11	ELECT	47MF	20%	16V
C87	1-124-477-11	ELECT	47MF	20%	16V
C91	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C95	1-164-337-11	CERAMIC CHIP	2.2MF		16V
C101	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C102	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C104	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C105	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C106	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C119	1-163-369-11	CERAMIC CHIP	47PFF	5%	25V
C121	1-126-176-11	ELECT	220MF	20%	10V
C122	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C131	1-126-099-11	ELECT	2.2MF	20%	35V

< FILTER >

CF1	1-527-839-00	FILTER, CERAMIC
CF2	1-567-569-11	FILTER, CERAMIC
CF3	1-527-840-00	FILTER, CERAMIC
CF4	1-567-570-11	FILTER, CERAMIC
SWF1	1-579-662-11	FILTER, SURFACE WAVE
SWF3	1-404-711-11	SAWF
SWF4	1-579-660-11	FILTER, SAWTOOTH WAVE

< CONNECTOR >

CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P

< TRIMMER >

CT1	1-404-801-11	TRAP, CERAMIC
CT2	1-409-429-11	TRAP, CERAMIC
CV1	1-141-245-00	CAP, TRIMMER
CV1	1-141-245-00	CAP, TRIMMER
CV3	1-141-304-21	TRIMMER, CERAMIC

< DIODE >

D7	8-719-421-57	DIODE MA73-TX
D8	8-719-421-57	DIODE MA73-TX
D9	8-719-421-57	DIODE MA73-TX

< IC >

IC1	8-759-070-75	IC M52312SP
IC2	8-759-070-71	IC TDA9820
IC3	8-759-979-62	IC PCF8574

< COIL >

REF.NO.	PART NO.	DESCRIPTION	
L1	1-408-419-00	INDUCTOR	68UH
L2	1-408-419-00	INDUCTOR	68UH
L3	1-408-407-00	INDUCTOR	6.8UH
L4	1-408-419-00	INDUCTOR	68UH
L5	1-408-419-00	INDUCTOR	68UH
L7	1-408-406-00	INDUCTOR	5.6UH
L9	1-408-419-00	INDUCTOR	68UH
L71	1-408-419-00	INDUCTOR	68UH
L101	1-408-399-00	INDUCTOR	1.5UH
L121	1-408-407-00	INDUCTOR	6.8UH

< TRANSISTOR >

Q1	8-729-907-06	TRANSISTOR	BF199-AMMO
Q4	8-729-920-74	TRANSISTOR	2SC2412K-QR
Q5	8-729-115-10	TRANSISTOR	2SK105A-10
Q6	8-729-900-52	TRANSISTOR	DTC114YK
Q7	8-729-216-22	TRANSISTOR	2SA1162-G
Q8	8-729-920-74	TRANSISTOR	2SC2412K-QR
Q10	8-729-920-74	TRANSISTOR	2SC2412K-QR
Q11	8-729-920-74	TRANSISTOR	2SC2412K-QR
Q12	8-729-920-74	TRANSISTOR	2SC2412K-QR
Q13	8-729-920-74	TRANSISTOR	2SC2412K-QR
Q14	8-729-920-74	TRANSISTOR	2SC2412K-QR
Q15	8-729-920-74	TRANSISTOR	2SC2412K-QR
Q16	8-729-216-22	TRANSISTOR	2SA1162-G
Q101	8-729-104-80	TRANSISTOR	2SC3355
Q121	8-729-920-74	TRANSISTOR	2SC2412K-QR

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR5	1-216-296-00	METAL GLAZE	0	5%	1/8W
R1	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R3	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R4	1-216-041-00	METAL GLAZE	470	5%	1/10W
R5	1-216-021-00	METAL GLAZE	68	5%	1/10W
R6	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R8	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R9	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R10	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R11	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R24	1-216-280-00	METAL GLAZE	2.7M	5%	1/8W
R25	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R26	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R27	1-216-266-00	METAL GLAZE	680K	5%	1/8W
R28	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R29	1-216-035-00	METAL GLAZE	270	5%	1/10W
R30	1-216-049-00	METAL GLAZE	IK	5%	1/10W
R31	1-216-017-00	METAL GLAZE	47	5%	1/10W
R32	1-216-043-00	METAL GLAZE	560	5%	1/10W
R33	1-216-037-00	METAL GLAZE	330	5%	1/10W
R34	1-216-252-00	METAL GLAZE	180K	5%	1/8W
R35	1-216-035-00	METAL GLAZE	270	5%	1/10W
R36	1-216-029-00	METAL GLAZE	150	5%	1/10W
R37	1-216-049-00	METAL GLAZE	IK	5%	1/10W
R38	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R39	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R40	1-216-049-00	METAL GLAZE	IK	5%	1/10W
R42	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R43	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R44	1-216-027-00	METAL GLAZE	120	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R45	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R46	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R47	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R48	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R49	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R53	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R54	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R55	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R56	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R57	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R58	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R59	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R60	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R61	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R63	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R71	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R72	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R73	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R74	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R75	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R76	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R77	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R81	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R82	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R83	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R84	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R85	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R86	1-216-689-00	METAL GLAZE 39K 5% 1/10W	
R87	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R88	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R89	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R90	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R91	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R92	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R93	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R94	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R95	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R96	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R97	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R98	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R99	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R100	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R102	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R103	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R104	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R105	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R121	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R122	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R123	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R124	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R125	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R301	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R302	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R303	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R304	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R305	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R306	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R307	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R308	1-216-037-00	METAL GLAZE 330 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		< VARIABLE RESISTOR >	
RV2	1-241-120-11	RES, ADJ, CARBON 2.2K	
		< TRANSFORMER >	
T1	1-404-806-21	COIL	
T3	1-416-012-11	COIL	
T4	1-416-012-11	COIL	
T5	1-402-720-11	COIL	
		< CRYSTAL >	
X1	1-579-648-21	VIBRATOR, CERAMIC	

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1-466-734-11 IF BLOCK (IFH-395) (KV-S3432U)
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REF.NO.	PART NO.	DESCRIPTION	REMARK
		< CAPACITOR >	
C101	1-163-239-11	CERAMIC CHIP 33PF 5% 50V	
C102	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C103	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C104	1-164-232-11	CERAMIC CHIP 0.01F 10% 50V	
C105	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C106	1-124-477-11	ELECT 47MF 20% 16V	
C107	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C108	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C109	1-164-232-11	CERAMIC CHIP 0.01F 10% 50V	
C112	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C113	1-164-101-00	CERAMIC CHIP 22PF 5% 50V	
C114	1-124-477-11	ELECT 47MF 20% 16V	
C115	1-164-232-11	CERAMIC CHIP 0.01F 10% 50V	
C116	1-164-346-11	CERAMIC CHIP 1MF 16V	
C118	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C119	1-163-369-11	CERAMIC CHIP 47PFF 5% 25V	
C122	1-163-093-11	CERAMIC CHIP 10PF 5% 50V	
C130	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C131	1-163-224-11	CERAMIC CHIP 7PF 0.25PF 50V	
C133	1-124-477-11	ELECT 47MF 20% 16V	
C161	1-164-117-00	CERAMIC CHIP 100PF 5% 50V	
C162	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C163	1-164-346-11	CERAMIC CHIP 1MF 16V	
C164	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C165	1-164-232-11	CERAMIC CHIP 0.01F 10% 50V	
C166	1-124-477-11	ELECT 47MF 20% 16V	
C167	1-163-213-00	CERAMIC CHIP 0.0022MF 5% 50V	
C168	1-164-346-11	CERAMIC CHIP 1MF 16V	
C170	1-124-477-11	ELECT 47MF 20% 16V	
C171	1-124-477-11	ELECT 47MF 20% 16V	
C173	1-124-477-11	ELECT 47MF 20% 16V	
		< FILTER >	
CD1	1-579-657-21	DISCRIMINATOR, CERAMIC	
CF1	1-567-569-11	FILTER, CERAMIC	
SWF1	1-579-659-11	FILTER, SAWTOOTH WAVE	
		< CONNECTOR >	
CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P	
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P	

IF (KV-S3432U) M2

REF.NO.	PART NO.	DESCRIPTION	REMARK
		< TRIMMER >	
CT1	1-409-333-00	TRAP, CERAMIC (6.0MHZ)	
		< DIODE >	
D161	8-719-400-18	DIODE MA152WK	
		< IC >	
IC1	8-759-070-76	IC M52308SP	
IC3	8-759-514-54	IC BA7046	
		< COIL >	
L101	1-408-414-00	INDUCTOR 27UH	
L102	1-408-419-00	INDUCTOR 68UH	
L103	1-408-419-00	INDUCTOR 68UH	
L104	1-408-406-00	INDUCTOR 5.6UH	
L105	1-408-410-00	INDUCTOR 12UH	
L142	1-408-790-41	INDUCTOR 0.56UH	
L161	1-408-419-00	INDUCTOR 68UH	
		< TRANSISTOR >	
Q101	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q102	8-729-216-22	TRANSISTOR 2SA1162-G	
Q122	8-729-216-22	TRANSISTOR 2SA1162-G	
Q161	8-729-216-22	TRANSISTOR 2SA1162-G	
Q172	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q173	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		< RESISTOR >	
JR1	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR2	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR3	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR4	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR7	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR8	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR9	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR10	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR11	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR12	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR13	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
JR14	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR16	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR18	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR19	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR20	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR21	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR23	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR24	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR25	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR29	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR30	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR33	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR38	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR39	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR40	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR41	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR42	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR101	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R101	1-216-075-00	METAL GLAZE 12K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R102	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R103	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R104	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R105	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R106	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R107	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R108	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R110	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R112	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R113	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R114	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R115	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R116	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R117	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R118	1-216-117-00	METAL GLAZE 680K 5% 1/10W	
R119	1-216-240-00	METAL GLAZE 56K 5% 1/8W	
R120	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R121	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R122	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R123	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R130	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R131	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R132	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R133	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R134	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R135	1-216-198-00	METAL GLAZE 1K 5% 1/8W	
R153	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R159	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R160	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R161	1-216-755-11	METAL CHIP 130K 0.50% 1/10W	
R162	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R163	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R164	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R165	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R166	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R167	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R168	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R169	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R175	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R176	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R177	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R178	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R179	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R181	1-216-037-00	METAL GLAZE 330 5% 1/10W	
		< VARIABLE RESISTOR >	
RV1	1-241-121-11	RES, ADJ, CARBON 4.7K	
		< TRANSFORMER >	
T4	1-416-017-21	COIL	
T5	1-416-018-21	COIL	

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*A-1635-020-A M2 BOARD, COMPLETE
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REF.NO.	PART NO.	DESCRIPTION	REMARK
		< CAPACITOR >	
C001	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C004	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C007	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	

M2 **C**

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R016	1-216-045-00	METAL GLAZE	680	5%	1/10W
R017	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R018	1-216-041-00	METAL GLAZE	470	5%	1/10W
R020	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R021	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R025	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R026	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R027	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R028	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R030	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R032	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R033	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R034	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R035	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R038	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R049	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R050	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R051	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R052	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R053	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R054	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R055	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R067	1-216-043-00	METAL GLAZE	560	5%	1/10W
R068	1-216-043-00	METAL GLAZE	560	5%	1/10W
R069	1-216-037-00	METAL GLAZE	330	5%	1/10W
R071	1-216-198-91	METAL GLAZE	1K	5%	1/8W
R535	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R536	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R538	1-216-025-00	METAL GLAZE	100	5%	1/10W
R539	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R541	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R542	1-216-025-00	METAL GLAZE	100	5%	1/10W
R544	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R545	1-216-033-00	METAL GLAZE	220	5%	1/10W
R546	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R547	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R551	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R552	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R553	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R559	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R560	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R564	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R565	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R566	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R567	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R568	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R570	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2001	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R2002	1-216-043-00	METAL GLAZE	560	5%	1/10W
R2003	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R2004	1-216-037-00	METAL GLAZE	330	5%	1/10W
R2005	1-216-041-00	METAL GLAZE	470	5%	1/10W
R2007	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R2008	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2009	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R2010	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2011	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R2012	1-216-029-00	METAL GLAZE	150	5%	1/10W
R2013	1-216-029-00	METAL GLAZE	150	5%	1/10W
R2014	1-216-029-00	METAL GLAZE	150	5%	1/10W
R2017	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2018	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2019	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R2020	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R2021	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R2022	1-216-033-00	METAL GLAZE	220	5%	1/10W
R2023	1-216-025-00	METAL GLAZE	100	5%	1/10W
R2025	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R2026	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R2030	1-216-295-91	METAL GLAZE	0	5%	1/10W
R2032	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2033	1-216-295-91	METAL GLAZE	0	5%	1/10W
R2036	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2037	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R2039	1-216-041-00	METAL GLAZE	470	5%	1/10W
R2040	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W

< CRYSTAL >

REF.NO.	PART NO.	DESCRIPTION
X2001	1-579-965-21	VIBRATOR, CRYSTAL

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*A-1638-033-A C BOARD, COMPLETE
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< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C701	1-162-114-00	CERAMIC	0.0047MF		2KV
C703	1-123-946-00	ELECT	4.7MF	20%	250V
C705	1-162-116-00	CERAMIC	680PF	10%	2KV
C708	1-163-197-00	CERAMIC CHIP	470PF	10%	50V
C709	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C710	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C711	1-101-880-00	CERAMIC	47PF	5%	50V
C712	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C713	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C714	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C716	1-124-478-11	ELECT	100MF	20%	25V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION
CN0002	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
CN0403	1-564-511-11	PLUG, CONNECTOR 8P
CN0421	1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P

< DIODE >

REF.NO.	PART NO.	DESCRIPTION
D701	8-719-901-33	DIODE 1SS133
D702	8-719-901-33	DIODE 1SS133
D703	8-719-901-33	DIODE 1SS133
D704	8-719-901-33	DIODE 1SS133
D705	8-719-901-33	DIODE 1SS133
D706	8-719-901-33	DIODE 1SS133
D707	8-719-901-33	DIODE 1SS133
D708	8-719-901-33	DIODE 1SS133
D709	8-719-901-33	DIODE 1SS133
D710	8-719-901-33	DIODE 1SS133
D713	8-719-908-03	DIODE GP08D

< CRT SOCKET >

REF.NO.	PART NO.	DESCRIPTION
J701 ⚠	1-540-223-11	SOCKET, CRT

REF.NO.	PART NO.	DESCRIPTION		REMARK
C008	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C010	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C011	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C012	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C014	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C016	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C017	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C018	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C019	1-124-916-11	ELECT 22MF	20%	50V
C020	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C022	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C023	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C024	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C025	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C026	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C032	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C035	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C036	1-164-005-11	CERAMIC CHIP 0.47MF		25V
C037	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C039	1-163-011-11	CERAMIC CHIP 0.0015MF	10%	50V
C042	1-162-638-11	CERAMIC CHIP 1MF		16V
C044	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C522	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C523	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C524	1-163-113-00	CERAMIC CHIP 68PF	5%	50V
C525	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C528	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C529	1-163-169-00	CERAMIC CHIP 33PF	5%	50V
C541	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V
C542	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C543	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C544	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C546	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C547	1-163-020-00	CERAMIC CHIP 0.0082MF	10%	50V
C549	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V
C550	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V
C559	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C560	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C563	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C564	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C565	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C566	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C567	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C568	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C569	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C570	1-162-568-11	CERAMIC CHIP 0.33MF	10%	16V
C2001	1-163-235-11	CERAMIC CHIP 22PF	5%	50V
C2002	1-163-235-11	CERAMIC CHIP 22PF	5%	50V
C2004	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2005	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C2008	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2016	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2017	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2018	1-164-505-11	CERAMIC CHIP 2.2MF		16V
C2019	1-124-916-11	ELECT 22MF	20%	50V
C2020	1-164-222-11	CERAMIC CHIP 0.22MF		25V
C2021	1-163-113-00	CERAMIC CHIP 68PF	5%	50V
C2024	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C2025	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C2027	1-164-222-11	CERAMIC CHIP 0.22MF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
		< FILTER >			
CD001	1-579-126-11	VIBRATOR, CERAMIC			
		< CONNECTOR >			
CN1413	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P			
CN1426	*1-568-881-51	PIN, CONNECTOR 6P			
CN1432	*1-568-882-51	PIN, CONNECTOR 7P			
CN1435	*1-564-508-11	PLUG, CONNECTOR 5P			
		< DIODE >			
D001	8-719-027-82	DIODE MA3039H-TX			
D2001	8-719-036-58	DIODE MA3030-H(TX)			
D2003	8-719-914-44	DIODE DAP202K			
D2007	8-719-914-44	DIODE DAP202K			
		< IC >			
IC001	8-759-168-52	IC SDA30C162-GEG			
IC002	8-759-167-62	IC TMS27PC010A-15FML			
	1-750-797-11	SOCKET, PLCC (IC002)			
IC561	8-752-347-92	IC CXD2018Q			
IC562	8-759-998-98	IC LM358D			
IC563	8-759-708-05	IC NJM78L05A			
IC2002	8-759-262-58	IC SDA5273P-C22-GEG			
		< COIL >			
L001	1-408-421-00	INDUCTOR	100UH		
L561	1-408-409-00	INDUCTOR	10UH		
L562	1-408-409-00	INDUCTOR	10UH		
L563	1-408-947-00	INDUCTOR	2.2MMH		
L2001	1-410-674-31	INDUCTOR	82UH		
		< TRANSISTOR >			
Q002	8-729-216-22	TRANSISTOR 2SA1162-G			
Q003	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q564	8-729-216-22	TRANSISTOR 2SA1162-G			
Q565	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q566	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q567	8-729-901-01	TRANSISTOR DTC144EK			
Q2001	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q2002	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q2003	8-729-216-22	TRANSISTOR 2SA1162-G			
Q2004	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q2005	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q2006	8-729-901-01	TRANSISTOR DTC144EK			
Q2008	8-729-901-00	TRANSISTOR DTC124EK-T146			
		< RESISTOR >			
JR553	1-216-295-91	METAL GLAZE	0	5%	1/10W
R001	1-216-025-00	METAL GLAZE	100	5%	1/10W
R002	1-216-025-00	METAL GLAZE	100	5%	1/10W
R003	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R004	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R005	1-216-295-91	METAL GLAZE	0	5%	1/10W
R007	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R008	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R010	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R011	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R012	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R014	1-216-049-00	METAL GLAZE	1K	5%	1/10W

< COIL >

REF.NO.	PART NO.	DESCRIPTION				REMARK
L701	1-410-667-31	INDUCTOR	22UH			
L703	1-408-609-41	INDUCTOR	33UH			
L705	1-408-609-41	INDUCTOR	33UH			
L707	1-408-609-41	INDUCTOR	33UH			

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q701	8-729-906-70	TRANSISTOR BF871				
Q702	8-729-906-70	TRANSISTOR BF871				
Q703	8-729-906-70	TRANSISTOR BF871				
Q704	8-729-906-70	TRANSISTOR BF871				
Q705	8-729-906-70	TRANSISTOR BF871				
Q706	8-729-906-70	TRANSISTOR BF871				
Q707	8-729-200-17	TRANSISTOR 2SA1091-O				
Q708	8-729-200-17	TRANSISTOR 2SA1091-O				
Q709	8-729-200-17	TRANSISTOR 2SA1091-O				
Q710	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q711	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q712	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q713	8-729-216-22	TRANSISTOR 2SA1162-G				
Q714	8-729-255-12	TRANSISTOR 2SC2551-O				

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR701	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR703	1-216-296-91	METAL GLAZE	0	5%	1/8W	
R701	1-202-848-00	SOLID	680K	10%	1/2W	
R702	1-202-838-00	SOLID	100K	20%	1/2W	
R703	1-202-815-11	SOLID	47K	20%	1/2W	
R704	1-202-842-11	SOLID	220K	10%	1/2W	
R705	1-216-367-11	METAL OXIDE	0.68	5%	2W	F
R707	1-249-421-11	CARBON	2.2K	5%	1/4W	
R708	1-249-421-11	CARBON	2.2K	5%	1/4W	
R709	1-249-421-11	CARBON	2.2K	5%	1/4W	
R710	1-215-899-11	METAL OXIDE	15K	5%	2W	F
R711	1-202-820-11	SOLID	1.5K	20%	1/2W	
R712	1-215-899-11	METAL OXIDE	15K	5%	2W	F
R713	1-202-820-11	SOLID	1.5K	20%	1/2W	
R714	1-215-899-11	METAL OXIDE	15K	5%	2W	F
R715	1-202-820-11	SOLID	1.5K	20%	1/2W	
R716	1-247-700-11	CARBON	100	5%	1/4W	F
R717	1-249-405-11	CARBON	100	5%	1/4W	F
R718	1-247-700-11	CARBON	100	5%	1/4W	F
R720	1-249-417-11	CARBON	1K	5%	1/4W	F
R722	1-247-713-11	CARBON	1K	5%	1/4W	F
R724	1-249-417-11	CARBON	1K	5%	1/4W	F
R725	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R726	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R727	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R728	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R729	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R730	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R731	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R732	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R733	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R734	1-202-549-00	SOLID	100	20%	1/2W	
R735	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R738	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R739	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R740	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R741	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R742	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R743	1-249-434-11	CARBON	27K	5%	1/4W	
R747	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R749	1-216-490-11	METAL OXIDE	39K	5%	3W	F
R751	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R753	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R755	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R756	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R757	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R758	1-249-419-11	CARBON	1.5K	5%	1/4W	
R759	1-249-419-11	CARBON	1.5K	5%	1/4W	
R760	1-249-419-11	CARBON	1.5K	5%	1/4W	

< VARIABLE RESISTOR >

REF.NO.	PART NO.	DESCRIPTION				REMARK
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702	1-241-714-11	RES, ADJ, METAL FILM 110M				

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*A-1640-098-A D1 BOARD, COMPLETE
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4-382-854-11 SCREW (M3X10), P, SW (+)

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1601	1-124-903-11	ELECT	1MF	20%	50V	
C1602	1-136-177-00	FILM	1MF	5%	50V	
C1603	1-130-772-00	FILM	0.22MF	5%	63V	
C1605	1-126-320-11	ELECT	10MF	20%	16V	
C1606	1-124-477-11	ELECT	47MF	20%	25V	
C1607	1-124-902-00	ELECT	0.47MF	20%	50V	
C1608	1-102-112-00	CERAMIC	330PF	10%	50V	
C1610	1-106-391-12	MYLAR	0.1MF	5%	200V	
C1611	1-124-903-11	ELECT	1MF	20%	50V	
C1614	1-137-371-11	FILM	0.015MF	5%	50V	
C1615	1-124-903-11	ELECT	1MF	20%	50V	
C1617	1-129-702-00	FILM	0.001MF	10%	400V	
C1618	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1620	1-136-601-11	FILM	0.01MF	5%	630V	
C1622	1-124-478-11	ELECT	100MF	20%	25V	
C1623	1-129-702-00	FILM	0.001MF	10%	400V	
C1625	1-126-320-11	ELECT	10MF	20%	16V	
C1626	1-130-777-00	FILM	0.1MF	5%	63V	
C1627	1-136-173-00	FILM	0.47MF	5%	50V	
C1628	1-124-907-11	ELECT	10MF	20%	50V	
C1629	1-136-559-11	FILM	0.0047MF	10%	630V	
C1630	1-102-244-00	CERAMIC	220PF	10%	500V	
C1631	1-124-907-11	ELECT	10MF	20%	50V	
C1633	1-124-907-11	ELECT	10MF	20%	50V	
C1634	1-136-559-11	MYLAR	0.0047MF	10%	400V	
C1635	1-136-205-11	FILM	0.022MF	10%	400V	
C1637	1-129-702-00	FILM	0.001MF	10%	400V	
C1680	1-124-797-11	ELECT	0.47MF	20%	160V	
C1681	1-129-702-00	FILM	0.001MF	10%	630V	
C1684	1-137-366-11	FILM	0.0022MF	5%	50V	
C1690	1-123-947-00	ELECT	10MF	20%	160V	
C1801	1-124-477-11	ELECT	47MF	20%	25V	
C1802	1-124-477-11	ELECT	47MF	20%	25V	
C1803	1-137-370-11	FILM	0.01MF	5%	50V	
C1804	1-137-370-11	FILM	0.01MF	5%	50V	
C1805	1-130-777-00	FILM	0.1MF	5%	63V	

D1

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1806	1-130-777-00	FILM	0.1MF	5%	63V
C1807	1-124-360-00	ELECT	1000MF	20%	16V
C1809	1-136-104-00	FILM	0.16MF	5%	200V
C1810	1-136-177-00	FILM	1MF	5%	50V
C1811	1-162-318-11	CERAMIC	0.001MF	10%	500V
C1812	1-124-927-11	ELECT	4.7MF	20%	50V
C1813	1-106-383-00	MYLAR	0.047MF	10%	100V
C1814	1-124-907-11	ELECT	10MF	20%	50V
C1815	1-124-907-11	ELECT	10MF	20%	50V
C1816	1-124-916-11	ELECT	22MF	20%	50V
C1817	1-124-927-11	ELECT	4.7MF	20%	50V
C1818	1-124-477-11	ELECT	47MF	20%	25V
C1819	1-130-777-00	FILM	0.1MF	5%	63V
C1820	1-126-103-11	ELECT	470MF	20%	16V
C1822	1-136-559-11	MYLAR	0.0047MF	10%	400V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION
CN0607	*1-568-879-11	PIN, CONNECTOR 4P
CN0622	*1-564-512-11	PLUG, CONNECTOR 9P
CN0630	*1-568-878-51	PIN, CONNECTOR 3P
CY1	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P

< DIODE >

REF.NO.	PART NO.	DESCRIPTION
D1601	8-719-901-33	DIODE 1SS133
D1602	8-719-109-97	DIODE RD6.8ESB2
D1603	8-719-302-43	DIODE EL1Z
D1605	8-719-901-33	DIODE 1SS133
D1606	8-719-980-78	DIODE ERA83-006
D1607	8-719-901-33	DIODE 1SS133
D1608	8-719-980-78	DIODE ERA83-006
D1611	8-719-901-33	DIODE 1SS133
D1612	8-719-970-87	DIODE ERA38-06
D1613	8-719-109-89	DIODE RD5.6ESB2
D1614	8-719-901-33	DIODE 1SS133
D1680	8-719-970-87	DIODE ERA38-06
D1801	8-719-980-78	DIODE ERA83-006
D1802	8-719-901-33	DIODE 1SS133
D1804	8-719-901-33	DIODE 1SS133
D1805	8-719-801-35	THYRISTOR SHOR3D42
D1806	8-719-980-78	DIODE ERA83-006
D1807	8-719-980-78	DIODE ERA83-006
D1808	8-719-901-33	DIODE 1SS133
D1809	8-719-901-33	DIODE 1SS133
D1810	8-719-901-33	DIODE 1SS133
D1811	8-719-302-43	DIODE EL1Z
D1812	8-719-901-33	DIODE 1SS133

< IC >

REF.NO.	PART NO.	DESCRIPTION
IC1601	8-759-135-80	IC UPC358C
IC1603	8-759-103-93	IC UPC393C
IC1604	8-759-103-93	IC UPC393C
IC1801	8-749-920-58	IC SI-3090CA
IC1802	8-752-052-88	IC CXA1526P
IC1803	8-759-135-80	IC UPC358C

< COIL >

REF.NO.	PART NO.	DESCRIPTION	
L1601	1-410-093-11	INDUCTOR	33MMH
L1602	1-459-075-00	COIL,DYNAMIC CONVERSION CHOKE	
L1607	1-406-676-11	COIL, CHOKE 6.8MMH	
L1801	1-412-539-41	INDUCTOR	150UH
L1802	1-459-087-00	COIL,HCC DUST CORE 3.9MMH	

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION
Q1601	8-729-173-38	TRANSISTOR 2SA733-K
Q1602	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1603	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1604	8-729-173-38	TRANSISTOR 2SA733-K
Q1605	8-729-173-38	TRANSISTOR 2SA733-K
Q1606	8-729-119-80	TRANSISTOR 2SC2688-LK
Q1607	8-729-119-80	TRANSISTOR 2SC2688-LK
Q1608	8-729-140-97	TRANSISTOR 2SB734-34
Q1609	8-729-140-96	TRANSISTOR 2SD774-34
Q1610	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1611	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1612	8-729-173-38	TRANSISTOR 2SA733-K
Q1613	8-729-931-45	TRANSISTOR IRF614
Q1614	8-729-173-38	TRANSISTOR 2SA733-K
Q1615	8-729-011-06	TRANSISTOR 2SC3840K
Q1616	8-729-173-38	TRANSISTOR 2SA733-K
Q1617	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1618	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1802	8-729-173-38	TRANSISTOR 2SA733-K
Q1803	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1804	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1805	8-729-177-22	TRANSISTOR 2SB772-Q
Q1806	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1807	8-729-140-93	TRANSISTOR 2SB733-34
Q1808	8-729-173-38	TRANSISTOR 2SA733-K
Q1809	8-729-209-15	TRANSISTOR 2SD2012
Q1810	8-729-140-96	TRANSISTOR 2SD774-34
Q1811	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1812	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1813	8-729-119-78	TRANSISTOR 2SC2785-HFE

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR1	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR2	1-216-296-91	METAL GLAZE	0	5%	1/8W	
R1601	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1602	1-249-433-11	CARBON	22K	5%	1/4W	
R1603	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1604	1-249-429-11	CARBON	10K	5%	1/4W	
R1605	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1606	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1607	1-249-436-11	CARBON	39K	5%	1/4W	
R1608	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R1609	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R1610	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R1611	1-218-758-11	METAL CHIP	180K	0.50%	1/10W	
R1612	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1613	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1615	1-249-424-11	CARBON	3.9K	5%	1/4W	
R1616	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1617	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1619	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1620	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1621	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1622	1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R1624	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1625	1-249-430-11	CARBON	12K	5%	1/4W	
R1626	1-249-409-11	CARBON	220	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION			REMARK	
R1627	1-249-415-11	CARBON	680	5%	1/4W	
R1628	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1629	1-249-429-11	CARBON	10K	5%	1/4W	
R1630	1-249-433-11	CARBON	22K	5%	1/4W	
R1631	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1633	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1634	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1636	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1637	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1638	1-247-807-31	CARBON	100	5%	1/4W	
R1639	1-249-405-11	CARBON	100	5%	1/4W	F
R1640	1-249-405-11	CARBON	100	5%	1/4W	F
R1641	1-247-807-31	CARBON	100	5%	1/4W	
R1644	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1645	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1646	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1647	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1648	1-249-435-11	CARBON	33K	5%	1/4W	
R1650	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1652	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1653	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R1654	1-247-889-00	CARBON	270K	5%	1/4W	
R1655	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1656	1-249-413-11	CARBON	470	5%	1/4W	
R1657	1-249-393-11	CARBON	10	5%	1/4W	F
R1658	1-249-437-11	CARBON	47K	5%	1/4W	
R1659	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R1660	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1661	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1662	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1664	1-249-412-11	CARBON	390	5%	1/4W	F
R1665	1-215-894-11	METAL OXIDE	2.2K	5%	2W	F
R1666	1-215-894-11	METAL OXIDE	2.2K	5%	2W	F
R1671	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1680	1-249-417-11	CARBON	1K	5%	1/4W	
R1681	1-249-429-11	CARBON	10K	5%	1/4W	
R1682	1-249-433-11	CARBON	22K	5%	1/4W	
R1683	1-249-411-11	CARBON	330	5%	1/4W	
R1684	1-249-435-11	CARBON	33K	5%	1/4W	
R1685	1-249-441-11	CARBON	100K	5%	1/4W	
R1686	1-249-441-11	CARBON	100K	5%	1/4W	
R1687	1-249-441-11	CARBON	100K	5%	1/4W	
R1801	1-249-409-11	CARBON	220	5%	1/4W	
R1802	1-249-409-11	CARBON	220	5%	1/4W	
R1804	1-247-891-00	CARBON	330K	5%	1/4W	
R1806	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1807	1-247-891-00	CARBON	330K	5%	1/4W	
R1808	1-215-461-00	METAL	47K	1%	1/4W	
R1809	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1810	1-249-413-11	CARBON	470	5%	1/4W	
R1811	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1812	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1813	1-249-417-11	CARBON	1K	5%	1/4W	
R1815	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1816	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1817	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1818	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1819	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1820	1-249-417-11	CARBON	1K	5%	1/4W	
R1821	1-216-379-11	METAL OXIDE	6.8	5%	2W	F
R1822	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1824	1-249-417-11	CARBON	1K	5%	1/4W	F
R1825	1-215-857-11	METAL OXIDE	10	5%	1W	F
R1826	1-249-404-00	CARBON	82	5%	1/4W	
R1827	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R1828	1-249-441-11	CARBON	100K	5%	1/4W	
R1829	1-249-414-11	CARBON	560	5%	1/4W	
R1830	1-249-411-11	CARBON	330	5%	1/4W	
R1831	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1832	1-215-864-00	METAL OXIDE	150	5%	1W	F
R1833	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1834	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1835	1-249-393-11	CARBON	10	5%	1/4W	
R1836	1-249-435-11	CARBON	33K	5%	1/4W	
R1837	1-249-435-11	CARBON	33K	5%	1/4W	
R1838	1-216-379-11	METAL OXIDE	6.8	5%	2W	F
R1839	1-249-410-11	CARBON	270	5%	1/4W	
R1840	1-249-429-11	CARBON	10K	5%	1/4W	
R1841	1-249-437-11	CARBON	47K	5%	1/4W	
R1842	1-249-429-11	CARBON	10K	5%	1/4W	
R1843	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1846	1-249-429-11	CARBON	10K	5%	1/4W	
R1847	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1848	1-249-429-11	CARBON	10K	5%	1/4W	
R1849	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1850	1-249-415-11	CARBON	680	5%	1/4W	

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*A-1640-113-A D5 BOARD, COMPLETE

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< CAPACITOR >

C803	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C804	1-136-161-00	FILM	0.047MF	5%	50V
C806	1-124-907-11	ELECT	10MF	20%	50V
C823	1-124-902-00	ELECT	0.47MF	20%	50V
C827	1-136-187-11	FILM	0.047MF	5%	63V
C847	1-164-337-11	CERAMIC CHIP	2.2MF		16V
C852	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C853	1-124-910-11	ELECT	47MF	20%	50V
C857	1-124-902-00	ELECT	0.47MF	20%	50V
C861	1-130-777-00	FILM	0.1MF	5%	63V
C866	1-137-364-11	FILM	0.001MF	5%	50V
C870	1-137-364-11	FILM	0.001MF	5%	50V
C871	1-130-651-00	FILM	0.001MF	2%	100V
C872	1-124-907-11	ELECT	10MF	20%	50V
C873	1-137-364-11	FILM	0.001MF	5%	50V

< CONNECTOR >

CN2044	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P

< DIODE >

D804	8-719-901-33	DIODE 1SS133
D808	8-719-109-88	DIODE RD5.6ESB1
D818	8-719-109-93	DIODE RD6.2ESB2
D821	8-719-914-44	DIODE DAP202K
D827	8-719-982-96	DIODE MTZJ-T-77-2.2A
D830	8-719-914-44	DIODE DAP202K
D831	8-719-914-43	DIODE DAN202K

REF.NO.	PART NO.	DESCRIPTION	REMARK
D832	8-719-914-44	DIODE DAP202K	
D833	8-719-914-44	DIODE DAP202K	
		< IC >	
IC802	8-759-103-93	IC UPC393C	
		< TRANSISTOR >	
Q804	8-729-216-22	TRANSISTOR 2SA1162-G	
Q805	8-729-216-22	TRANSISTOR 2SA1162-G	
Q812	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q818	8-729-216-22	TRANSISTOR 2SA1162-G	
		< RESISTOR >	
R802	1-216-295-91	METAL GLAZE 0 5% 1/10W	
R805	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R806	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R808	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R809	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R813	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R814	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R815	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R820	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R824	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R828	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R829	1-249-429-11	CARBON 10K 5% 1/4W	F
R830	1-216-687-11	METAL CHIP 33K 0.50% 1/10W	
R832	1-216-682-11	METAL CHIP 20K 0.50% 1/10W	
R834	1-218-753-11	METAL CHIP 110K 0.50% 1/10W	
R835	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R837	1-216-695-11	METAL CHIP 68K 0.50% 1/10W	
R838	1-216-695-11	METAL CHIP 68K 0.50% 1/10W	
R846	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R847	1-216-699-11	METAL CHIP 100K 0.50% 1/10W	
R867	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R884	1-216-693-11	METAL CHIP 56K 0.50% 1/10W	

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*A-1640-114-A D2 BOARD, COMPLETE

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REF.NO.	PART NO.	DESCRIPTION	REMARK
		< CAPACITOR >	
C1851	1-124-910-11	ELECT 47MF 20% 50V	
C1853	1-124-907-11	ELECT 10MF 20% 50V	
C1854	1-124-910-11	ELECT 47MF 20% 50V	
C1855	1-106-367-00	MYLAR 0.01MF 10% 400V	
C1858	1-163-275-11	CERAMIC CHIP 0.001MF 5% 50V	
C1859	1-163-275-11	CERAMIC CHIP 0.001MF 5% 50V	
C1860	1-137-104-11	FILM 0.033MF 10% 250V	
C1861	1-137-104-11	FILM 0.033MF 10% 250V	
C1862	1-124-657-00	ELECT 10MF 20% 50V	
C1863	1-136-104-00	FILM 0.16MF 5% 200V	
C1866	1-124-119-00	ELECT 330MF 20% 16V	
C1867	1-124-478-11	ELECT 100MF 20% 25V	
C1891	1-164-346-11	CERAMIC CHIP 1MF 16V	
C1892	1-164-346-11	CERAMIC CHIP 1MF 16V	
		< CONNECTOR >	
CN1823	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		< DIODE >	
D1851	8-719-110-31	DIODE RD12ESB2	
D1856	8-719-901-33	DIODE 1SS133	
D1867	8-719-987-87	DIODE ERA85-009	
D1868	8-719-987-87	DIODE ERA85-009	
D1882	8-719-109-89	DIODE RD5.6ESB2	
D1883	8-719-109-89	DIODE RD5.6ESB2	
		< IC >	
IC1851	8-759-708-05	IC NJM78L05A	
IC1852	8-759-135-80	IC UPC358C	
IC1853	8-759-902-21	IC SN74LS221N	
		< COIL >	
L1852	1-459-390-00	COIL (WITH CORE)	
		< TRANSISTOR >	
Q1851	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1852	8-729-173-38	TRANSISTOR 2SA733-K	
Q1853	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1854	8-729-173-38	TRANSISTOR 2SA733-K	
Q1855	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1856	8-729-017-05	TRANSISTOR 2SA1837	
Q1857	8-729-122-03	TRANSISTOR 2SA1220A-P	
Q1858	8-729-920-92	TRANSISTOR 2SD2096-EF	
Q1859	8-729-173-38	TRANSISTOR 2SA733-K	
Q1860	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1861	8-729-017-06	TRANSISTOR 2SC4793	
		< RESISTOR >	
JR1851	1-216-296-91	METAL GLAZE 0 5% 1/8W	
R1851	1-260-096-11	CARBON 560 5% 1/2W	
R1852	1-249-437-11	CARBON 47K 5% 1/4W	
R1853	1-215-460-00	METAL 43K 1% 1/4W	
R1854	1-249-429-11	CARBON 10K 5% 1/4W	
R1860	1-249-403-11	CARBON 68 5% 1/4W	
R1861	1-249-429-11	CARBON 10K 5% 1/4W	
R1862	1-249-418-11	CARBON 1.2K 5% 1/4W	
R1863	1-215-473-00	METAL 150K 1% 1/4W	
R1873	1-216-474-11	METAL OXIDE 82 5% 3W	F
R1875	1-215-453-00	METAL 22K 1% 1/4W	
R1877	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R1878	1-260-089-11	CARBON 150 5% 1/2W	
R1879	1-216-296-91	METAL GLAZE 0 5% 1/8W	
R1881	1-215-867-00	METAL OXIDE 470 5% 1W	F
R1882	1-215-916-00	METAL OXIDE 680 5% 3W	F
R1889	1-260-098-11	CARBON 820 5% 1/2W	
R1891	1-249-411-11	CARBON 330 5% 1/4W	
R1893	1-215-911-11	METAL OXIDE 100 5% 3W	F
R1894	1-249-429-11	CARBON 10K 5% 1/4W	
R1895	1-247-895-00	CARBON 470K 5% 1/4W	
R1898	1-249-411-11	CARBON 330 5% 1/4W	
R1899	1-249-411-11	CARBON 330 5% 1/4W	
		< VARIABLE RESISTOR >	
RV1851	1-241-765-11	RES, ADJ, CERMET 22K	
RV1853	1-241-761-11	RES, ADJ, CERMET 1K	

REF.NO.	PART NO.	DESCRIPTION			REMARK
		< TRANSFORMER >			
T1851	1-423-622-11	TRANSFORMER, FERRITE (VPOT)			
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	*A-1642-102-A	D BOARD, COMPLETE *****************			
	4-200-001-01	HOLDER, IC			
	4-201-023-01	SPACER, INSULATING			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	4-812-134-00	RIVET NYLON, 3.5			
	7-682-652-09	SCREW +PSW 3X16			
		< CAPACITOR >			
C601	1-130-202-00	FILM	0.022MF	10%	400V
C602	1-162-116-00	CERAMIC	680PF	10%	2KV
C603	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C605	1-124-910-11	ELECT	47MF	20%	50V
C608	1-124-903-11	ELECT	1MF	20%	50V
C611	1-102-002-00	CERAMIC	680PF	10%	500V
C612	1-130-481-00	FILM	0.0068MF	5%	50V
C613	1-129-722-00	FILM	0.047MF	10%	630V
C614	1-102-030-00	CERAMIC	330PF	10%	500V
C615	1-124-962-11	ELECT	2200MF	20%	25V
C616	1-162-115-00	CERAMIC	330PF	10%	1KV
C617	1-162-116-00	CERAMIC	680PF	10%	2KV
C618	1-162-115-00	CERAMIC	330PF	10%	2KV
C619	1-102-030-00	CERAMIC	330PF	10%	500V
C620	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C621	1-124-347-00	ELECT	100MF	20%	160V
C622	1-128-320-11	ELECT	2200MF	20%	16V
C623	1-102-030-00	CERAMIC	330PF	10%	500V
C624	1-126-800-51	ELECT	2200MF	20%	25V
C625	1-126-800-51	ELECT	2200MF	20%	25V
C627	1-136-553-11	FILM	0.0015MF	10%	400V
C628	1-124-910-11	ELECT	47MF	20%	50V
C629	1-124-907-11	ELECT	10MF	20%	50V
C631	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V
C632	1-137-372-11	FILM	0.022MF	5%	50V
C633	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V
C636	1-130-777-00	FILM	0.1MF	5%	63V
C640	1-124-916-11	ELECT	22MF	20%	50V
C645	1-128-571-11	ELECT	56MF	20%	50V
C646	1-124-798-11	ELECT	1MF	20%	160V
C647	1-124-907-11	ELECT	10MF	20%	50V
C801	1-137-116-11	FILM	1MF	5%	200V
C805	1-124-902-00	ELECT	0.47MF	20%	50V
C808	1-162-114-00	CERAMIC	0.0047MF		2KV
C809	1-124-808-51	ELECT	10MF	20%	200V
C810	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C812	1-162-318-11	CERAMIC	0.001MF	10%	500V
C813	1-110-364-11	MYLAR	0.1MF	10%	200V
C815	1-162-117-00	CERAMIC	100PF	10%	500V
C816	1-102-244-00	CERAMIC	220PF	10%	500V
C819	1-126-103-11	ELECT	470MF	20%	16V
C821	1-137-347-11	FILM	0.022MF	3%	2KV
C822	1-162-116-00	CERAMIC	680PF	10%	2KV
C824	1-137-366-11	FILM	0.0022MF	5%	50V
C825	1-162-116-00	CERAMIC	680PF	10%	2KV
C826	1-137-515-11	FILM	0.056MF	3%	400V
C828	1-136-557-11	FILM	0.0033MF	10%	400V
C830	1-136-105-00	FILM	0.33MF	5%	200V
C831	1-123-932-00	ELECT	4.7MF	20%	160V
C832	1-124-910-11	ELECT	47MF	20%	50V
C833	1-136-569-11	FILM	1.2MF	5%	200V
C834	1-137-114-11	FILM	0.68MF	5%	200V
C835	1-124-480-11	ELECT	470MF	20%	25V
C836	1-102-228-00	CERAMIC	470PF	10%	500V
C837	1-129-702-00	FILM	0.001MF	10%	400V
C838	1-110-364-11	MYLAR	0.1MF	10%	200V
C839	1-123-950-00	ELECT	47MF	20%	250V
C840	1-124-480-11	ELECT	470MF	20%	25V
C841	1-102-228-00	CERAMIC	470PF	10%	500V
C842	1-136-208-11	FILM	0.068MF	10%	250V
C843	1-124-907-11	ELECT	10MF	20%	50V
C846	1-123-024-21	ELECT	33MF		160V
C851	1-137-364-11	FILM	0.001MF	5%	50V
C854	1-162-115-00	CERAMIC	330PF	10%	2KV
C863	1-106-383-00	MYLAR	0.047MF	10%	100V
C869	1-130-777-00	FILM	0.1MF	5%	63V
C875	1-102-038-00	CERAMIC	0.001MF		500V
C877	1-124-902-00	ELECT	0.47MF	20%	50V
C878	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C879	1-102-228-00	CERAMIC	470PF	10%	500V
C1501	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1502	1-124-903-11	ELECT	1MF	20%	50V
C1503	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C1504	1-124-480-11	ELECT	470MF	20%	25V
C1505	1-124-911-11	ELECT	220MF	20%	50V
C1506	1-130-777-00	FILM	0.1MF	5%	63V
C1507	1-137-423-11	MYLAR	0.15MF	10%	100V
C1508	1-124-480-11	ELECT	470MF	20%	25V
C1509	1-124-767-00	ELECT	2.2MF	20%	50V
C1511	1-124-907-11	ELECT	10MF	20%	50V
C1512	1-124-006-11	ELECT	10MF	20%	25V
C1514	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1515	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
		< CONNECTOR >			
CN0004	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
CN0009	1-568-878-51	PIN, CONNECTOR 3P			
CN0504	1-564-511-11	PLUG, CONNECTOR 8P			
CN0505	*1-568-880-51	PIN, CONNECTOR 5P			
CN0506	*1-568-880-51	PIN, CONNECTOR 5P			
CN0519	*1-568-878-51	PIN, CONNECTOR 3P			
CN0521	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
CN0522	*1-564-512-11	PLUG, CONNECTOR 9P			
CN0523	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P			
CN0524	*1-568-878-51	PIN, CONNECTOR 3P			
CN0525	*1-695-294-11	PIN, CONNECTOR (PC BOARD) 6P			
CN0526	*1-568-881-51	PIN, CONNECTOR 6P			
CN0529	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN0544	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P			
CN5521	*1-568-878-51	PIN, CONNECTOR 3P			
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P			
		< DIODE >			
D601	8-719-914-44	DIODE DAP202K			
D602	8-719-302-43	DIODE EL1Z			
D604	8-719-110-39	DIODE RD15ESB1			

D

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D605	8-719-975-56	DIODE 1SS120A	
D606	8-719-302-43	DIODE EL1Z	
D607	8-719-302-43	DIODE EL1Z	
D608	8-719-300-33	DIODE RU-3AM	
D609	8-719-029-04	DIODE D5L60	
D610	8-719-970-39	DIODE ESAC92M-02	
D611	8-719-029-04	DIODE D5L60	
D612	8-719-510-09	DIODE D10SC6M	
D613	8-719-920-68	DIODE ESAB92-02	
D614	8-719-920-68	DIODE ESAB92-02	
D616	8-719-110-31	DIODE RD12ESB2	
D619	8-719-914-43	DIODE DAN202K	
D620	8-719-901-33	DIODE 1SS133	
D621	8-719-302-43	DIODE EL1Z	
D624	8-719-312-39	DIODE R2K-V1	
D801	8-719-018-82	DIODE RGP02-20EL-6394	
D802	8-719-302-43	DIODE EL1Z	
D803	8-719-982-27	DIODE MTZJ-33C	
D809	8-719-110-03	DIODE RD7.5ESB2	
D811	8-719-300-33	DIODE RU-3AM	
D812	8-719-908-03	DIODE GP08D	
D813	8-719-908-03	DIODE GP08D	
D814	8-719-028-29	DIODE RU30ALFS1	
D815	8-719-302-43	DIODE EL1Z	
D816	8-719-979-85	DIODE EGP20G	
D822	8-719-982-20	DIODE MTZJ-30B	
D824	8-719-028-72	DIODE RGP02-17EL-6433	
D825	8-719-914-43	DIODE DAN202K	
D826	8-719-914-43	DIODE DAN202K	
D828	8-719-901-33	DIODE 1SS133	
D1501	8-719-914-43	DIODE DAN202K	
D1503	8-719-908-03	DIODE GP08D	
D1504	8-719-982-03	DIODE MTZJ-3.6A	

< IC >

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC601	8-759-073-29	IC TDA4605-3	
IC602	8-759-908-15	IC TL431CLP	
IC603 ⚠	8-749-923-44	IC SFH617G-1	
IC801	8-759-103-93	IC UPC393C	
IC803	8-759-081-31	IC MC78L12ACPRP	
IC1501	8-759-192-71	IC STV9379	

< COIL >

REF.NO.	PART NO.	DESCRIPTION	REMARK
L602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
L603	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
L604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
L605	1-412-528-11	INDUCTOR 18UH	
L606	1-412-528-11	INDUCTOR 18UH	
L610	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
L622	1-412-533-21	INDUCTOR 47UH	
L623	1-412-533-21	INDUCTOR 47UH	
L802	1-408-947-00	INDUCTOR 2.2MMH	
L803	1-420-872-00	COIL, AIR CORE	
L804	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
L807	1-459-483-00	COIL (WITH CORE)	
L808	1-421-541-00	COIL, CHOKE 1000UH	
L809	1-459-104-00	COIL, WITH CORE	
L810	1-460-197-21	COIL, FERRITE (PMC)	
L811	1-412-519-11	INDUCTOR 3.3UH	
L812	1-412-531-31	INDUCTOR 33UH	
L813	1-412-519-11	INDUCTOR 3.3UH	
L817	1-423-374-11	TRANSFORMER, LINEARITY (HLT)	
L1501	1-412-525-21	INDUCTOR 10UH	
L1502	1-412-525-21	INDUCTOR 10UH	
L1503	1-412-525-21	INDUCTOR 10UH	

< IC LINK >

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS601 ⚠	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
PS602 ⚠	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
PS603 ⚠	1-532-686-21	LINK, IC 2.7A (ICP-F75)	
PS604 ⚠	1-532-686-21	LINK, IC 2.7A (ICP-F75)	

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q601	8-729-016-14	TRANSISTOR BUZ91A-E3155	
Q602	8-729-177-22	TRANSISTOR 2SB772-Q	
Q603	8-729-900-53	TRANSISTOR DTC114EK	
Q604	8-729-209-15	TRANSISTOR 2SD2012	
Q605	8-729-255-12	TRANSISTOR 2SC2551-O	
Q606	8-729-216-22	TRANSISTOR 2SA1162-G	
Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q612	8-729-903-29	TRANSISTOR DTA144TK	
Q613	8-729-216-22	TRANSISTOR 2SA1162-G	
Q801	8-729-016-32	TRANSISTOR 2SC4927-01	
Q802	8-729-140-97	TRANSISTOR 2SB734-34	
Q806	8-729-019-71	TRANSISTOR 2SK1916-53-F50	
Q807	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q813	8-729-140-96	TRANSISTOR 2SD774-34	
Q1501	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1502	8-729-901-01	TRANSISTOR DTC144EK	
Q1503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1504	8-729-901-01	TRANSISTOR DTC144EK	

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION				REMARK
R602	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R603	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R604	1-260-200-11	CARBON	240K	5%	1/2W	
R605	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R606	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R607	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W	
R608	1-215-903-11	METAL OXIDE	68K	5%	2W	F
R609	1-249-395-11	CARBON	15	5%	1/4W	
R610	1-247-881-00	CARBON	120K	5%	1/4W	
R611	1-215-887-00	METAL OXIDE	150	5%	2W	F
R612	1-260-131-11	CARBON	470K	5%	1/2W	
R613	1-216-259-00	METAL GLAZE	360K	5%	1/8W	
R614	1-216-488-11	METAL OXIDE	18K	5%	3W	F
R615	1-216-488-11	METAL OXIDE	18K	5%	3W	F
R617	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R618	1-216-449-11	METAL OXIDE	56	5%	2W	F
R620	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R621	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R622	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R623	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R625	1-216-449-11	METAL OXIDE	56	5%	2W	F
R626	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R627	1-249-398-11	CARBON	27	5%	1/4W	F
R629	1-215-464-00	METAL	62K	1%	1/4W	
R630	1-249-421-11	CARBON	2.2K	5%	1/4W	
R631	1-216-398-11	METAL OXIDE	5.6	5%	3W	F

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R633	1-249-415-11	CARBON	680	5%	1/4W	
R634	1-215-477-00	METAL	220K	1%	1/4W	
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R636	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R637	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R640	1-217-192-21	WIREWOUND	0.22	10%	2W	F
R642	1-216-374-00	METAL OXIDE	2.7	5%	2W	F
R643	1-249-417-11	CARBON	1K	5%	1/4W	
R645	1-215-464-00	METAL	62K	1%	1/4W	
R646	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R647	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R648	1-249-424-11	CARBON	3.9K	5%	1/4W	
R649	1-216-270-00	METAL GLAZE	1M	5%	1/8W	
R650	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R651	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R652	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R653	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R654	1-215-904-11	METAL OXIDE	100K	5%	2W	F
R655	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R656	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R657	1-247-811-31	CARBON	150	5%	1/4W	
R801	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R804	1-217-778-11	FUSIBLE	1K	5%	1W	F
R807	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R811	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R812	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R818	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R819	1-247-755-11	CARBON	1.8K	5%	1/2W	F
R821	1-215-918-00	METAL OXIDE	1.5K	5%	3W	F
R822	1-215-918-00	METAL OXIDE	1.5K	5%	3W	F
R823	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R826	1-216-166-00	METAL GLAZE	47	5%	1/8W	
R833	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R836	1-216-242-91	METAL GLAZE	68K	5%	1/8W	
R839	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R840	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R841	1-249-397-11	CARBON	22	5%	1/4W	F
R842	1-216-454-11	METAL OXIDE	390	5%	2W	F
R848	1-215-885-00	METAL OXIDE	68	5%	2W	F
R849	1-215-881-11	METAL OXIDE	15	5%	2W	F
R851	1-247-743-11	CARBON	220	5%	1/2W	F
R852	1-249-389-11	CARBON	4.7	5%	1/4W	F
R853	1-249-443-11	CARBON	0.47	5%	1/4W	F
R854	1-249-377-11	CARBON	0.47	5%	1/4W	F
R855	1-202-826-00	SOLID	4.7K	20%	1/2W	
R858	1-249-423-11	CARBON	3.3K	5%	1/4W	
R864	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R868	1-249-428-11	CARBON	8.2K	5%	1/4W	
R871	1-249-493-11	CARBON	56K	5%	1/2W	
R872	1-249-393-11	CARBON	10	5%	1/4W	F
R873	1-249-393-11	CARBON	10	5%	1/4W	F
R876	1-249-421-11	CARBON	2.2K	5%	1/4W	
R877	1-215-907-11	METAL OXIDE	22	5%	3W	F
R889	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R893	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R894	1-216-264-00	METAL GLAZE	560K	5%	1/8W	
R895	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R897	1-216-089-91	METAL GLAZE	47K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R898	1-216-262-00	METAL GLAZE	470K	5%	1/8W	
R1501	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R1502	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R1503	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1504	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1506	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1508	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1509	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1510	1-249-382-11	CARBON	1.2	5%	1/4W	F
R1511	1-215-888-00	METAL OXIDE	220	5%	2W	F
R1512	1-216-370-11	METAL OXIDE	1.2	5%	2W	F
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1550	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1551	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1552	1-216-105-00	METAL GLAZE	220K	5%	1/10W	

< VARIABLE RESISTOR >

RV601	1-241-628-11	RES, ADJ, CARBON 2.2K

< TRANSFORMER >

T601 ⚠	1-423-738-11	S.R.T (SMT89)
T801 ⚠	1-439-524-11	TRANSFORMER ASSY, FLYBACK (NX-3000A2)
T803	1-437-090-00	HDT
T804	1-424-584-11	TRANSFORMER, DYNAMIC FOCUS

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*1-648-314-11 H1 BOARD
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< SOCKET >

J81	1-568-678-11	TERMINAL BLOCK, S 3P
J82	1-562-837-11	JACK

< CAPACITOR >

C083	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C087	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V

< CONNECTOR >

CN1008	*1-564-513-11	PLUG, CONNECTOR 10P
CN1018	*1-568-878-51	PIN, CONNECTOR 3P

< COIL >

L081	1-408-409-00	INDUCTOR	10UH
L082	1-408-409-00	INDUCTOR	10UH

< RESISTOR >

JR021	1-216-295-91	METAL GLAZE	0	5%	1/10W
R081	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R082	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R083	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R084	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W
R085	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W

< SWITCH >

S081	1-571-532-21	SWITCH, TACTIL
S082	1-571-532-21	SWITCH, TACTIL
S083	1-571-532-21	SWITCH, TACTIL

H2 J

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-648-475-11	H2 BOARD ********	
	*4-201-076-01	HOLDER, LED	
	*4-374-987-01	GUIDE, LIGHT	
	4-381-686-01	BRACKET (B), LIGHT GUIDE	
		< CAPACITOR >	
C161	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C162	1-162-638-11	CERAMIC CHIP 1MF	16V
C163	1-163-077-00	CERAMIC CHIP 0.1MF 10%	25V
C164	1-163-077-00	CERAMIC CHIP 0.1MF 10%	25V
C165	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C166	1-163-109-00	CERAMIC CHIP 47PF 5%	50V
		< CONNECTOR >	
CN1132	*1-568-882-51	PIN, CONNECTOR 7P	
		< DIODE >	
D092	8-719-948-31	DIODE LD-201VR	
D093	8-719-948-31	DIODE LD-201VR	
D094	8-719-948-31	DIODE LD-201VR	
		< IC >	
IC091	8-741-101-75	IC SBX1610-11	
		< RESISTOR >	
R091	1-216-190-00	METAL GLAZE 470 5%	1/8W

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1651-054-A	J BOARD, COMPLETE *****************	
		< CAPACITOR >	
C281	1-124-119-00	ELECT 330MF 20%	16V
C291	1-101-005-00	CERAMIC 0.022MF	50V
C292	1-101-005-00	CERAMIC 0.022MF	50V
C293	1-101-003-00	CERAMIC 0.0047MF	50V
C294	1-101-003-00	CERAMIC 0.0047MF	50V
C295	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C296	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C901	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C902	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C904	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C905	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C906	1-101-004-00	CERAMIC 0.01MF	50V
C907	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C908	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C909	1-101-004-00	CERAMIC 0.01MF	50V
C910	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C911	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C912	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C913	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C914	1-163-121-00	CERAMIC CHIP 150PF 5%	50V
C915	1-163-121-00	CERAMIC CHIP 150PF 5%	50V
C916	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C917	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C918	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C919	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C920	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C921	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C922	1-124-477-11	ELECT 47MF 20%	16V
C923	1-164-346-11	CERAMIC CHIP 1MF	16V
C924	1-124-477-11	ELECT 47MF 20%	16V
C925	1-124-477-11	ELECT 47MF 20%	16V
C926	1-164-346-11	CERAMIC CHIP 1MF	16V
C927	1-124-477-11	ELECT 47MF 20%	16V
C928	1-124-477-11	ELECT 47MF 20%	16V
C929	1-124-477-11	ELECT 47MF 20%	16V
C930	1-124-477-11	ELECT 47MF 20%	16V
C931	1-164-346-11	CERAMIC CHIP 1MF	16V
C932	1-164-346-11	CERAMIC CHIP 1MF	16V
C933	1-124-477-11	ELECT 47MF 20%	16V
C934	1-124-477-11	ELECT 47MF 20%	16V
C935	1-124-477-11	ELECT 47MF 20%	16V
C936	1-164-346-11	CERAMIC CHIP 1MF	16V
C937	1-164-346-11	CERAMIC CHIP 1MF	16V
C938	1-124-477-11	ELECT 47MF 20%	16V
		< CONNECTOR >	
CN1209	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
CN1210	*1-564-522-11	PLUG, CONNECTOR 7P	
CN1233	*1-564-518-11	PLUG, CONNECTOR 3P	
CN1240	*1-564-518-11	PLUG, CONNECTOR 3P	
		< DIODE >	
D901	8-719-921-69	DIODE MTZJ-9.1	
D902	8-719-921-69	DIODE MTZJ-9.1	
D903	8-719-921-69	DIODE MTZJ-9.1	
D904	8-719-921-69	DIODE MTZJ-9.1	
D905	8-719-921-69	DIODE MTZJ-9.1	
D906	8-719-921-69	DIODE MTZJ-9.1	
D907	8-719-921-69	DIODE MTZJ-9.1	
D908	8-719-921-69	DIODE MTZJ-9.1	
D909	8-719-921-69	DIODE MTZJ-9.1	
D910	8-719-921-69	DIODE MTZJ-9.1	
D911	8-719-921-69	DIODE MTZJ-9.1	
D912	8-719-921-69	DIODE MTZJ-9.1	
D913	8-719-921-69	DIODE MTZJ-9.1	
D914	8-719-921-69	DIODE MTZJ-9.1	
D915	8-719-921-69	DIODE MTZJ-9.1	
D916	8-719-921-69	DIODE MTZJ-9.1	
D917	8-719-921-69	DIODE MTZJ-9.1	
D918	8-719-921-69	DIODE MTZJ-9.1	
D919	8-719-921-69	DIODE MTZJ-9.1	
D920	8-719-921-69	DIODE MTZJ-9.1	
D921	8-719-921-69	DIODE MTZJ-9.1	
D922	8-719-921-69	DIODE MTZJ-9.1	
D923	8-719-921-69	DIODE MTZJ-9.1	
D924	8-719-921-69	DIODE MTZJ-9.1	
D925	8-719-921-69	DIODE MTZJ-9.1	
D926	8-719-921-69	DIODE MTZJ-9.1	
D927	8-719-921-69	DIODE MTZJ-9.1	
D928	8-719-921-69	DIODE MTZJ-9.1	
D999	8-719-110-39	DIODE RD15ESB1	
		< SOCKET >	
J291	1-536-996-21	TERMINAL BOARD, INPUT/OUTPUT	
J901	1-695-296-11	TERMINAL BLOCK, S	
J903	1-561-534-41	SOCKET, PIN 21P	

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R973	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R974	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R975	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R976	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R977	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	

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MISCELLANEOUS
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-504-145-11	SPEAKER (12CM)	
	1-504-121-21	SPEAKER (SQUAWKER) (5CM)	
	⚠ 1-452-616-11	NECK ASSY, PICTURE TUBE (NA323)	
	⚠ 1-406-701-11	COIL, DEMAGNETIZATION	
	⚠ 1-406-702-11	COIL, DEMAGNETIZATION	
	⚠ 8-451-393-12	DEFLECTION YOLK (Y34EXA)	
	⚠ 1-751-680-11	CORD, POWER (WITH NOIZE FILTER) (KV-S3431A/S3431D/S3433E/S3431K)	
	⚠ 1-590-460-11	CORD, POWER (WITH CONNECTOR) (KV-S3431B)	
	⚠ 1-590-762-11	CORD, POWER (WITH PLUG) (KV-S3432U)	
	1-452-032-00	MAGNET, DISC; 10MM	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
V901	⚠ 8-733-731-05	PICTURE TUBE (M81KVA10X)	

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ACCESSORIES AND PACKING MATERIALS
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	4-202-137-01	DOOR, REAR	
	4-202-739-11	MANUAL, INSTRUCTION (KV-S3431D)	
	4-202-739-41	MANUAL, INSTRUCTION (KV-S3431A)	
	4-202-739-51	MANUAL, INSTRUCTION (KV-S3431B)	
	4-202-739-61	MANUAL, INSTRUCTION (KV-S3432U)	
	4-202-739-71	MANUAL, INSTRUCTION (KV-S3433E)	
	4-202-739-91	MANUAL, INSTRUCTION (KV-S3431K)	
	4-202-271-01	CUSHION (UPPER) (ASSY)	
	4-202-272-01	CUSHION (LOWER) (ASSY)	
	2-202-273-01	TRAY	
	4-202-274-01	INDIVIDUAL CARTON	

REMOTE COMMANDER
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-467-272-11	REMOTE COMMANDER RM-831	
	1-466-854-41	REMOTE COMMANDER RM-860	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
J903	1-695-550-11	SOCKET 21P	
J904	1-695-296-11	TERMINAL BLOCK, S	
J905	1-695-293-11	SOCKET 21P	
J906	1-695-296-11	TERMINAL BLOCK, S	
J907	1-695-293-11	SOCKET 21P	
		< COIL >	
L281	1-402-711-11	INDUCTOR, WIDEBAND	
L283	1-402-711-11	INDUCTOR, WIDEBAND	
L291	1-402-711-11	INDUCTOR, WIDEBAND	
L292	1-402-711-11	INDUCTOR, WIDEBAND	
		< TRANSISTOR >	
Q281	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q282	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		< RESISTOR >	
JR901	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR905	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR906	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR909	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR910	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR911	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR915	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR917	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR918	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR919	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR920	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR921	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR923	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR924	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR926	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR927	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR928	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR935	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR939	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR940	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR942	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR944	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR946	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR947	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR952	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR954	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR955	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JR956	1-216-295-91	METAL GLAZE 0 5% 1/10W	
JR957	1-216-295-91	METAL GLAZE 0 5% 1/10W	
R283	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R284	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R287	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W	
R288	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W	
R289	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R291	1-249-413-11	CARBON 470 5% 1/4W	
R292	1-249-413-11	CARBON 470 5% 1/4W	
R901	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R902	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R903	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R904	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R905	1-216-188-00	METAL GLAZE 390 5% 1/8W	
R906	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R907	1-216-029-00	METAL GLAZE 150 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R908	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R909	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R910	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R911	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R913	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R914	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R915	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R916	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R917	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R919	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R920	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R921	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R922	1-216-222-00	METAL GLAZE 10K 5% 1/8W	
R923	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R924	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R925	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R926	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R927	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R928	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R929	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R930	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R931	1-216-212-00	METAL GLAZE 3.9K 5% 1/8W	
R932	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R933	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R934	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R935	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R936	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R937	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R938	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R939	1-216-188-00	METAL GLAZE 390 5% 1/8W	
R940	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R941	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R942	1-216-188-00	METAL GLAZE 390 5% 1/8W	
R943	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R944	1-216-188-00	METAL GLAZE 390 5% 1/8W	
R945	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R946	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R947	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R948	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R949	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R950	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R951	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R952	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R953	1-216-188-00	METAL GLAZE 390 5% 1/8W	
R954	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R955	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R956	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R957	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R958	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R959	1-216-674-11	METAL CHIP 9.1K 0.50% 1/10W	
R960	1-216-674-11	METAL CHIP 9.1K 0.50% 1/10W	
R961	1-216-674-11	METAL CHIP 9.1K 0.50% 1/10W	
R965	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R966	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R967	1-216-029-00	METAL GLAZE 150 5% 1/10W	
R968	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R969	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R970	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R971	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R972	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	